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Receivers' reactions to dissonant use of communication technology in the workplace: Effects on communication strategies and the perceived usefulness of technology

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# Receivers' reactions to dissonant use of communication technology in the workplace: Effects on communication strategies and the perceived usefulness of technology

by

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# Dedication

I would like to dedicate this dissertation to Todd, Ethan and Cole. Thank you for the countless gifts and eternally special moments you've given me along the way. Todd, thank you for making my life more meaningful and for making me smarter. You've helped me more than you know to see the value and possibility of a life studying work that has become my life's work.

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Receivers' reactions to dissonant use of communication technology in the workplace: Effects on communication strategies and the perceived usefulness of technology

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This study examined receivers' reactions to the dissonant use of communication technology in the workplace and how they respond to it. Results of an online questionnaire indicate communication technology misuse is viewed by organizational members (N = 114) as a routine negative side effect of media use in the workplace with dire implications for work relationships. The incidence and severity of communication technology misuse is far greater than had been perceived previously with most types of misuse eliciting a moderate to high degree of concern from media users. The concern over media misuse is further illustrated by organizational members' admission they have a moderate to high intolerance for media misuse committed by coworkers, superiors, and subordinates. This concern is further underscored by the predominance of direct (voice)

and punitive (exit) responses of media users' when blame is attributed to their communication partner, rather than the technology used in the incident.

Communication technology appears to be misused most often while communicating about routine work-related matters with coworkers using email. Out of 15 different types of communication technology misuse, using technology to avoid others and broadcasting messages to others were the most frequently experienced types of technology misuse respectively. Respondents' written accounts of communication technology misuse most often described coworkers who intentionally and unintentionally broadcast messages to others and coworkers and superiors who made poor matches between the technology used (usually email) and the sensitivity of the message (usually negative feedback or confidential information). More than half of the respondents indicated the technology misuse they described in their story represented a pattern of behavior, rather than a single event, and was considered a moderate to high cause for concern.

A key purpose of the study was to test a model of communication technology misuse. While tests of absolute model fit were nonsignificant, post hoc analyses reveal experience with the technology in the incident and relationship satisfaction with one's communication partner are stronger predictors of perceived usefulness of technology and exit, voice, loyalty, and neglect then attributions of blame for the misuse incident. Theoretical contributions and practical implications, along with limitations of the study, are discussed in light of the results.

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# CHAPTER 1: INTRODUCTION AND OVERVIEW

Mounting press coverage of technology abuses by superiors and subordinates and between coworkers reveals inattention to media appropriateness can have dire consequences in organizations. Outrage over impersonal layoff notices sent via email, automated termination messages recorded on employees' home voice mail, and flaming of coworkers on company intranets are but a few examples of violations of appropriate communication media use that have spawned closer inspections of the media choices we make and the chances organizations take when media appropriateness is ignored.

Social scientists have long understood that as interactions among people become more complex and frequent, members of each party must adapt their behavior to each other in predictable, civil ways in order to manage and reconcile these increasingly complex interactions (Erickson, 1962; Goffman, 1967). According to Andersson and Pearson (1999), as the complexities of competition, technology and globalization intermingle, so too does workplace incivility with dramatic consequences for employees including increased dissatisfaction, stress, and turnover. Coworker relationships that were once characterized by "formality, yet friendliness; distance, yet politeness" are now marred by passive and indirect acts of aggression such as thoughtless, rude behavior and other negative forms of communication (Andersson & Pearson, 1999, p. 453). As workplace interactions become increasingly mediated rather than face-to-face, the likelihood of misunderstandings and uncertainty associated with new technologies will continue to be high as employees subject mediated messages to the multiple plausible interpretations to which they are prone (Weick, 1990).

Organizations use communication activities to make sense of their environments (Weick, 1995, 2001), to make decisions, and to coordinate and control internal activities involving coworkers, superiors and subordinates (O'Reilly & Pondy, 1979). According to Culnan and Markus (1987), "The introduction of new technologies that alter these communication activities has the potential to influence key aspects of organizational structure and process" (p. 421). A steady stream of research on communication technologies has been inspired by how new media alter organizational communication and to what effect (for recent discussions see DeSanctis & Fulk, 1999; Lievrouw & Livingstone, 2002; Liker, Haddad & Karlin, 1999; Rice & Gattiker, 2001). Historically, research on new media has focused on the intended effects of technology use, while paying little attention to their unintended effects and the negative consequences that sometimes occur as a result (for exceptions see Contractor & Seibold, 1993; Markus, 1994; Orlikowski, 2000). As Lievrouw and Livingstone (2002) indicate, "'new media' is a buzzword, shorthand for a volatile cultural and technology industry that includes multimedia, entertainment and e-commerce" (p. 1). In the present investigation 'new media' is used as it has been in social research since the 1960s by scholars "studying the forms, uses and implication of information and communication technologies (ICTs)" (Lievrouw & Livingstone, 2002, p. 1). Most definitions of new media and ICTs have focused on their technological features (Rice & Associates, 1984), but recent definitions have seen a shift beyond features to incorporate the social context in which they are used. The latest of these efforts appears in Lievrouw and Livingstone's (2002) edited volume,

The Handbook of New Media.

> Therefore, by new media we mean information and communication technologies and their associated social contexts, incorporating: The artifacts or devices that enable and extend our abilities to communicate; [t]he communication activities or practices we engage in to develop and use these devices; and the social arrangements or organizations that form around the devices and practices. (p.7)

More akin to the definition of new media ascribed to in the present study, these researchers also state "new media can be characterized more usefully in terms of, first, the particular ways that they are both the instrument and the product of social shaping, and second, their particular social consequences" (p. 8). Communication technologies are also considered 'new' if they give users an unprecedented ability to modify and redistribute content in comparison with traditional media.

Given that the present study is situated in organizations where communication media with unprecedented abilities to modify and redistribute content are used regularly in combination with traditional media (i.e., face-to-face interactions, memos, telephone) to accomplish one's daily job duties, perceptions of both kinds of media will be included in the investigation. Commonly utilized new communication technologies include email, voice mail, land-line telephones with added features (call waiting, speaker phone, conference call option), cell phones, pagers, and Instant Messaging. Rather than limit the types of communication media included in the current investigation by their specific features, commonly used communication technologies will be considered. Given the ubiquity of electronic forms of workplace communication as well as traditional channels of communication, I will refer to both as media in the study.

Media appropriateness, defined as the optimal match of a communication media's material characteristics to the task (Shapiro & Anderson, 1985) or, alternatively, as a match with the communication media use norms of one's workgroup (Fulk, Steinfeld, Schmitz, & Power, 1987) has never been so daunting for organizations to determine as it is today. According to Pritchett's (1998) New Work Habits for a Radically Changing World, since 1983 the work force in the United States added more than 25 million computers, and the number of cellular telephone subscribers jumped from zero in 1983 to 16 million by the end of 1993. In 1993, more than 19 million people carried pagers, and close to 12 billion messages were left in voice mailboxes. Notable benefits of mediated communication for coworkers, superiors and subordinates abound and include increased horizontal and vertical communication in organizations (Hinds & Keisler, 1995) and increases in the number and variety of people involved in decisionmaking (Sproull & Keisler, 1991). These well-publicized and other benefits of media use and the rapid-rate of communication media adoption inside and outside the workplace has left many media users to question whether media appropriateness even matters in a technology-rich age.

## The Problem

The increasingly normative use of email, cell phones, voice mail technologies, pagers, and other devices for professional and personal communication has blurred the boundaries of these worlds and our differentiation between them (Pritchett, 2000). The ubiquity of mediated communication messages, coupled with idiosyncratic social cognitions people engage in to make sense of them, suggest that employee's experiences of inappropriate media use or, more generally, media misuse may differ widely in their

nature and effect. Just as researchers have shown that given the same event, perceptions of mistreatment at work tend to vary according to the personal history and expectations of employees regarding treatment by peers, bosses and other parties (Folger, 1993; Harlos & Pinder, 1999), so too may employees' perceptions of inappropriate media use.

Weick (1995) observes that "to violate something is to interrupt an ongoing flow" (p. 100). Violations of normative behavior, Starbuck and Milliken (1988) argue, are the basic occasion for sensemaking and consist of "incongruous events, events that violate perceptual frameworks" (p. 52). For the purposes of this study, violations are akin to nonnormative behavior and refer to those incidents when communication media are used inappropriately and the norms for using communication media are perceived to have been violated. Research that determines what inappropriate media use looks like and how people process and respond to a "bad fit" between technology and task, or the nonnormative use of communication technology, would extend efforts exploring the negative effects of media and their social consequences. A growing number of communication and media scholars have made impressive inroads in this area with research examining the faithful and ironic uses of media (Contrator & Seibold, 1993), the negative effects of technology use (Markus, 1994), intended and unintended consequences of new media use (Orlikowski, 2000), and considerations of the symbol-carrying capacity of media and its role in shaping technology perceptions (Sitkin, Sutcliffe, & Barrios-Choplin, 1999). While these studies help explain the occurrence of negative effects of technology use and their possible consequences, none set out to explicitly examine them or do so adequately. Absent also from these studies are the

specific cognitive and communicative behaviors media users employ when confronted with what they perceive as a negative effect, and how these cognitions and behaviors ultimately affect work relationships. In the present study the label media user refers to a person who regularly uses communication media (Lievrouw & Livingstone, 2002).[1]

Moreover, research on media's negative effects has yet to determine what media misuse use (e.g., violations of appropriate media use) is. Research in this area has yet to identify what elements of the situation, content, timing, frequency, and channel constitute media misuse. Nor do we understand how organizational members make sense of media misuse given the relational, technology and organizational factors involved, what attributions are made to explain violations, and the strategies people use to communicatively respond to them. In effect, the process of media misuse left unattended by media and organizational communication scholars is ripe for study and a fruitful next step in the advancement of media appropriateness research.

This dissertation seeks to capture both the scope and complexity of media use violations in the workplace and also explain the process of media use violation from the receiver's perspective. The following three questions concerning inappropriate media use and its effects are examined: a) What do organizational members and media users perceive as media misuse? b) What perceptual and behavioral outcomes are associated with media misuse? And, c) what influence do attributions for media misuse and technology, relational and organizational factors have on communication and technology outcomes when media misuse occurs?

The remainder of this chapter further establishes the purpose of this research and its significance and offers conceptual and theoretical mechanisms through which to conduct it. In the next portion of the chapter, limitations and promising exceptions of existing media appropriateness research and theories of media selection are outlined. Promising empirical findings and theoretical advances are also identified that guide the present research. The last section of the chapter outlines the organization of this dissertation and the contents of each chapter.

## Purpose

### Media Appropriateness Research

Historically researchers have examined media appropriateness from a management perspective. Noting the challenge of media selection for this group, King and Xia (1997) observe "managers are more perplexed than overjoyed with the myriad of technology choices they are facing" (p. 143). Sympathetic to the complexity of the task managers have before them, researchers have identified the process of media selection as an executive skill (Lengel & Daft, 1988). Running parallel with the rapid growth and vibrancy of the technology industry, an extensive amount of research on the selection and use of communication media has been conducted in the last 25 years. An impressive line of research on media richness (Daft & Lengel, 1984; 1986; Daft, Lengel, & Trevino, 1987; Rice, 1993; Trevino, Lengel, & Daft, 1987; Trevino, Lengel, Gerloff, & Muir, 1990) addresses appropriateness in terms of the match between a media's material characteristics and a communicative task. This theoretical perspective emphasizes the objective features of the technology determine the best match between medium and task

over the role of the communicator and any influence social interaction may have on the process. Traditional applications of media richness have less utility when ascertaining the social implications of media use is the goal. Social influence theorists, on the other hand, (Fulk, 1993; Fulk, Schmitz, & Ryu, 1995; Schmitz & Fulk, 1991) contend people select communication media after assessing the technology usage habits of other members of the organization and subsequently use media in similar ways. The social information processing model of media use developed by Fulk, Steinfeld, Schmitz, and Power (1987) is based on social information processing theory (Salancik & Pfeffer, 1978). The theory proposes a number of ways in which coworkers influence the attitudes and behaviors of their peers (1) overt statements that individuals assimilate, (2) interpretations of events, (3) communications that increase the saliency of events simply by calling attention to them, and (4) provision of standards for judging the appropriateness of particular behaviors and for appropriately rationalizing workplace activities. In relation to media use, Fulk and colleagues (1987) proposed that social information will influence perceived media characteristics, perceived communication task requirements, attitudes toward communication media, and media use behavior such that a similar pattern of media perceptions and behaviors will be produced within and among different work groups.

Media choice studies have examined people's considerations of multiple communications media for fulfilling different needs (Dobos, 1992; Kippax & Murray, 1980; Perse & Courtright, 1993). Media choice theories such as the dual-capacity model that adopt a social information processing perspective (Sitkin, Sutcliffe, & Barrios-Choplin, 1992) more readily account for the social construction of media use perceptions

and help explain the strategic and even ironic uses of different communication media. The dual-capacity model in particular seems likely to have explanatory and predictive power in studies that consider the symbolic uses of media in organizations and the extent to which the perceived symbolism of different media influences attitudes about media use and perceptions of media effects. Likewise, the extent to which a type of media is perceived to carry symbolic value versus its data-carrying capacity may affect how individuals respond to their misuse. The perceived inappropriate use of highly symbolic media may evoke strong negative effects with regard to communication outcomes (i.e., trust, perceived communication competence of violator, strength of communication relationship) whereas media that are valued for their data-carrying capacity and hold little symbolic value may be less vulnerable to perceived media misuse and may result in negative technology-related outcomes (i.e., likelihood of future use, satisfaction with technology).

For example, in the first scenario a company-wide videoconferencing system symbolizing organizational unity and typically used only by the CEO to rally geographically dispersed employees during quarterly meetings, is used by the sales staff to broadcast weekly updates to employees about new products without regard to their audience's need for the information. The inappropriate and inconsiderate use of the videoconferencing system subjects many employees who do not need this information to a weekly disruption and is considered not only a waste of valuable work time, but a violation of media that held high symbolic value for dispersed employees who relied on the medium as much as the quarterly message from the CEO to provide a desired sense of

community. Alternatively, media users who routinely use email and value it more for its data-carrying capacity than its symbolic value may react differently to perceived misuse of the email and experience the misuse incident less intensely or associate it with negative technology-related outcomes such as decreased satisfaction with email.

Describing the present state of media research, Flanagin and Metzger (2001) observe, “we do not have a thorough understanding of individuals’ motivations for media use in view of their many options in today’s complex media environment” (p. 154). Despite this critique, media selection and the decision and motivation processes that precede media use have enjoyed more attention from researchers than media’s unintended and negative social effects. In relation to the study proposed here, Sitkin, Sutcliffe, & Barrios-Choplin (1992) cite the need for research that examines the effects of communicating in delicate work situations that may provoke negative responses and reactions to media appropriateness such as the delivery of unfavorable news. In their research on media choice, Sitkin et al. recommend future research in this area address the social implications of media selection and note that "[l]ittle attention has been paid to media selection as a means of influencing the potential impact of good or bad news" (Sitkin et al., 1992). Clearly, research efforts attempting to capture both the scope and complexity of mismatches between technology and task and their impact on employment relationships are warranted.

Organizational communication scholars echo this sentiment and also argue greater attention should be paid to the influence contextual factors have on unintended effects of media use (Contractor & Eisenberg, 1990; Contractor & Seibold, 1993; Jackson, Kuhn &

Poole, 2002; Poole & DeSactis, 1990). DeSanctis and Fulk (1999) claim that in order to advance communication technology research we must discover what contexts and situations organizations deem inappropriate for mediated communication. Research on media inappropriateness should help answer the questions these scholars pose.

> "Why is it that organizations that provide electronic mail for nearly every formal and informal conversation then decide to ban its use for discussion of, for example, performance evaluation information? Why do companies that have invested heavily in groupware technologies decide not to provide computers inside of meeting rooms or certain meeting rooms?" (DeSanctis & Fulk, 1999, p. 501).

Reviews of the CMC literature note that with few exceptions (Fulk, 1993; Rice & Aydin, 1991, Schmitz & Fulk, 1991) researchers have not adequately considered social influences on technology use and their subsequent outcomes (Fulk & Boyd, 1991). Discovering what combinations of relational factors, organizational factors, and technology features influence perceived violations of media use would advance media choice studies that typically examine media use up to its execution without sufficiently acknowledging its effects in organizational settings.

Not surprisingly, CMC research has historically been informed by the technological imperative perspective that privileged the “task, technology, or functional structure of the group or organization” (Zack & McKenney, 1999) without considering the symbolic uses of technology and other aspects of culture and work relationships. Communication scholars seeking redress of this oversight indicate the social context of a

group or organization has great influence on the social structure or interaction patterns of that group and should be given closer attention in CMC media effects research. Zack and McKenney (1999) indicate the social context includes “the culture, distribution of power, and the social norms, habits, practices, expectations, and preferences held by a group regarding its present and past interaction” (p. 250). Orlikowski (2000) describes technological, individual and contextual factors that influence how people perceive and make sense of media use. Specifically, she argues, we draw on the technical properties that comprise media such as the features created by the designers and those users have added on. Individual factors such as skills, power, knowledge, assumptions, and expectations about the technology and its use play important roles (Orlikowski & Gash, 1994). Finally, contextual factors also have an impact on our technology perceptions and use.

> “Users also draw on their knowledge of and experiences with the institutional contexts in which they live and work, and the social and cultural conventions associated with participating in such contexts. In this way, people’s use of technology becomes structured by these experiences, knowledge, meanings, habits, power relations, norms, and the technological artifacts at hand” (Orlikowski, 2000, p. 410).

Media theorists and organizational communication scholars have also argued that information technology research has not adequately addressed "the relationship between theories of media effects with theories of organizational communication and information processing" (Culnan & Markus, 1987, p. 421). For example, studies applying media

richness and appropriateness theories have not fully taken advantage of theoretical mechanisms in organizational studies such as sensemaking, unobtrusive control and cultural theories to examine how people in organizations make sense of and respond in light of disruptions or violations of otherwise normative media use, the controls that may govern how they can respond to media misuse, and the culture that informs and shapes these experiences. Likewise, sufficient attention has yet to be given to other organizational factors such as formal rules, roles and power that might moderate the effects of mismatches between technology and communicative tasks. Promising inroads are being made using interpretivist approaches to study technology that accommodate both process and context in a richer way than other more traditional perspectives. These studies lend insight into shifting and complex patterns of media behaviors. Despite the strengths of interpretivist approaches in explaining dynamic perspectives of technology selection, use and users reactions to them, Adler (1992) warns that strict adherence to this approach leaves researchers with no ability to generalize findings.

Thus, to progress toward the development of an explanatory and predictive model of media use violation and effects, the proposed study asks the following questions: a) What do media users in organizations perceive as media misuse? b) What perceptual and behavioral outcomes are associated with media misuse use? And, c) what attributions for media misuse and technology, organizational, and relational factors best predict communication and technology outcomes when media misuse occurs? Rather than focus on media selection concerns (e.g., choices between different technologies), this study addresses within mediated communication concerns in the employment of different

sensemaking strategies (e.g., attributions for media misuse and the considerations of contextual factors). This approach is employed to circumvent potential limitations posed by technologically deterministic approaches that focus more on structural features of different communication technologies.

## Significance

This study of media misuse and its effects has important implications for theory building, scholarship and practice. First, understanding the process by which people make sense of inappropriate uses of communication media and how they perceptually and behaviorally respond to media misuse may help to extend existing research on theories that address the unintended effects of technology and the social influence processes that shape technology perceptions and norms for its use. Specifically, this study is informed by DeSanctis and Poole's (1994) adaptive structuration theory and that of Fulk and colleagues (Fulk, 1993; Fulk & Boyd, 1991; Fulk, Schmitz, & Ryu, 1995; Fulk, Steinfeld, Schmitz, & Power, 1987) on the social influence model of media use.

Research has shown that popular views of technology as a panacea that can be used by workers to achieve whatever communication goals they desire, given a certain level of mastery, are overly simplistic at best. In their discussion of adaptive structuration theory DeSanctis and Poole (1994) explain how unintended consequences often ensue when communication media are used in practical relationships. Poole (1999) further explains the seemingly innocuous ties that strongly bind technology to user and are so important in determining communication media effects. "Technology use and implementation involves a complex interaction whereby user and technology redefine

and shape each other. This process is not wholly under the control of the user or others and may ultimately undermine original plans" (Poole, 1999, p. 466). Where adaptive structuration theory excels is in its capacity to describe this reflexive process of structuring between technology and user during group interaction which oftentimes leads to unintended and negative results. The present study does something different. Instead, the negative result is used as a starting point to understand how media users' react and cognitively and communicatively respond when media are perceived to have been used in inappropriate ways that violate the spirit of the technology.

Unlike most research on media appropriateness which focuses on a communicator's selection of the "best" media for the message or social setting, the model of communication technology misuse presented in this study adopts a receiver's perspective and as such privileges the experience of the person who perceives an inappropriate use of media has occurred. Whether the negative effect was intended or not matters less in this study than the effects media misuse has on persons receiving such messages and how they react to them. From this view individual sensemaking, rather than the overt negotiation of media appropriateness between sender and receiver, takes center stage.

## Adaptive Structuration Theory

DeSanctis and Poole (1994) developed AST to help explain media use in group communication settings and to adequately account for the complexity of social influences in these communication relationships. The theory assumes that groups draw on social structures as rules and resources for subsequent group interaction. The social structures

are generated from cultural values, prior experience interacting in groups, and management philosophies and procedures among other experiences in one's organization (DeSanctis, Poole, Dickson, & Jackson, 1993). With the introduction of communication technologies comes another source of social structures created by characteristics of the technology used. The social structures media characteristics generate also influence communication within the group in ways such as limiting how quickly or richly messages are transmitted and by governing central elements of participation and decision making processes. The present study further explores the influences of social structures on technology perceptions and communication outcomes by examining contextual factors that may mitigate them. The lack of attention given to contextual factors in studies of communication media prompted Zack and McKenney (1999) to state the following:

> [CMC] research is framed by the belief that given an appropriate design, once the technology is implemented communication processes and patterns will ultimately change in desired and intended ways. This assumption is so embedded that the potential influence of organizational culture or social context on patterns of CMC is rarely examined. Whether or not CMC will improve or even influence organizational performance, however, may depend on the particular social circumstances under which these electronic media are employed. (p. 248)

To explain the process of media misuse while accounting for the influence of social structures like those drawn upon in AST requires a close examination of contextual factors including social structures embedded in the organization, in work relationships and in technology perceptions and behaviors. The present study also strives to advance theory building on the social consequences of communication media use and, by including the attributions people make to explain negative effects of media, strengthen the explanatory power of predictions of media users' perceptual and behavioral responses

to media misuse. Determining the relative influence of attributions made to explain media misuse versus contextual factors (e.g., organizational, technological and relational) on the important outcomes mentioned above is also of interest in the study.

For practitioners, immediate implications for superior-subordinate and coworker communication can be drawn from research that identifies communication media misuse types and experiences. In the absence of "best practices" that outline both the benefits and consequences of media use in the workplace, many managers are putting at risk the very relationships new media purport to strengthen, those of coworkers and superiors and subordinates (Hacker, Goss, Townsley, & Horton, 1998). DeSanctis and Fulk (1999) suggest research on communication technologies address, "the degree to which unanticipated, negative, or destructive impacts can result from managerial choices regarding technological implementation" (p. 498). Given examples, or in this case a typology, of inappropriate uses of communication media in the workplace, managers can educate and caution employees at all levels who use new media about common pitfalls that can lead to perceptions that misuse has occurred and the likely effects. Likewise, workers who unintentionally misuse communication technology and experience first-hand the negative outcomes that can occur as a result can avoid these faux pas or attempt to correct earlier damage that has been done to their work relationships. Poole and De Sanctis (1990) voice support for these types of education efforts to address problems with media use, "When people struggle with a new technology, the solution may not always be to change the system but to explore ways in which to promote effective use of the

technology, through training, advice giving, leadership, or the addition of structures that limit the possibility for misuse" (p. 190).

Long recognized as a potential factor in the destruction of organizations, intraorganizational conflict between superiors and subordinates and coworkers is regarded as a serious concern in the workplace (Phillips, 1988). Viewed as one of the "traditional domains" of organizational communication research, superior-subordinate relationships are integral to organizational functioning (Putnam & Cheney, 1985). If managers are aware of the combinations of organizational, technology and relational factors that mediate perceptions of media misuse and subsequent outcomes, adjustments may be made in the organization's culture, assessments of workers' tolerance for media misuse can be ascertained, and relationships between communication partners can be more carefully considered to eradicate some types of media misuse or, at the very least, help to lessen their impact.

In those work relationships that are predominantly maintained through mediated or electronic communication such as in some forms of telework and when employees are geographically distant, sensitivity to communication technology misuse and its potentially damaging consequences may be the key to retaining these types of employees and keeping them satisfied in their jobs. This should be particularly important among geographically dispersed workers where certain organizational factors that may mediate violation perceptions are missing such as cues about the social context (i.e., the organization's culture and knowledge of a person's organizational role power) that are more readily determined in face-to-face interactions. Clearly, superiors and subordinates

who can make predictions about what types of communication media use may be perceived as misuse and what factors mediate these perceptions and their negative impacts, will be at an advantage in using new media effectively to perform their jobs and in mastering 21st century communication technologies.

## Organization of the Study

In the next chapter of this dissertation, relevant research on media appropriateness and the unintended effects of media are examined in more detail. First, research informing how technology misuse is conceptualized in the study and how it will be investigated in light of different types of misuse is described, followed by the presentation of a theoretical model of communication technology misuse. Research questions along with testable hypotheses are then presented. In Chapter three the research methods to be used in the study are described. Specifically, attention is given to the research design and rationale for the study, the sample, procedures used to collect data, key variables in the study, and proposed methods of analysis. Chapter four will present the results of the study. First, the frequency and severity of different types of communication technology misuse will be described along with examples of communication media violation types and their descriptive features. Next, respondents intolerance for communication technology misuse will be reported followed by the results of testing the communication technology misuse model. To conclude, Chapter five will offer a discussion of the study findings. Interpretations of the findings and conclusions will be presented. Limitations of the study will then be reviewed and finally, implications of the research for theory, scholarship and practice and directions for future

research on communication technology misuse and their effects on organizational relationships, technology attitudes and communication behaviors will be presented.

# CHAPTER TWO: REVIEW OF LITERATURE

In the previous chapter a rationale for the study of communication technology misuse was outlined along with an overview of promising research from social information processing perspectives that lend insight into how perceptions of new media are influenced by the social contexts in which they are situated. The theoretical significance of the study in relation to being influenced by adaptive structuration theory and the social information processing model were also discussed as were research implications for future studies on negative and unintended effects of new communication media. The chapter concluded with an overview of the practical significance of the study for managers, subordinates and geographically dispersed workers for whom communication technology misuse may be particularly salient.

This chapter is organized in three parts. First, a review of the literature on negative workplace communication and employee experiences of norm and expectancy violations is presented. Next, the rationale for developing a typology of communication technology misuse is outlined. In this section a more extensive explanation of communication technology misuse and the research that informs how misuse is conceptualized in the present study are reviewed along with the descriptive characteristics of the typology. In the third portion of the chapter, a theoretical model of communication technology misuse is proposed that considers relational factors and other aspects of the organizational context and technology perceptions on media users' sensemaking following an incident of misuse. Following descriptions of each portion of the model, research questions to be explored and hypotheses to be tested are presented.

Employee Experiences of Negative Workplace Communication

The last ten years has seen research on unpleasant work experiences or with "troublesome others" in the workplace flourish (Fritz, 2002). Studies of deviant, harmful, hurtful or just plain inappropriate interactions with coworkers (Bennett & Robinson, Fritz, 1997a; Sias, 1996; Sias & Jablin, 1995; Stohl & Schell, 1991, Sypher & Zorn, 1988), superiors and subordinates (Fritz, 2002) give special insight into negative work relationships. Given that work relationships are increasingly mediated through an ever changing array of communication technologies, researchers have also turned their eye toward negative and unintended effects of media use through the study of media appropriateness as reviewed earlier.

Despite this attention, to date media appropriateness research has not attempted to comprehensively identify negative uses or negative effects of mediated communication. Two types of organizational research that have studied employees as the recipients of inappropriate or untoward behavior are studies of psychological contract violation and organizational injustice. Brief reviews of this research as it relates to and informs the present conceptualization of communication technology misuse and how people may respond to them are presented next.

Psychological contract violations refer to the perceptions employees have of what their employers owe to them. These promissory contracts are inherently perceptual such that one party's understanding of the contract may be very different from the other (Robinson, 1996), much like different interpretations of appropriate behavior in organizations. A psychological contract breach, or violation, occurs when the employee

perceives an employer has broken or left a promise of employment unfulfilled. Research indicates the experience of psychological contract violation appears to be quite common (Robinson & Rousseau, 1994; Rousseau, 1995). In a longitudinal study of MBA alumni, over half of the study participants experienced a violation of preemployment commitment within the first two years on the job (Robinson & Rousseau, 1994). The types of violations included a number of adverse employment conditions, pay and promotion opportunities, the nature of the work and the quality and character of coworkers and the organization itself. Researchers have found the following negative outcomes are associated with psychological contract violations: decrease in perceived obligations to one's employer, lowered citizenship behavior, reduced commitment and satisfaction, and reduced trust in one's employer (Robinson, Kraatz, & Rouseau, 1994; Robinson & Rousseau, 1994; Robinson & Morrison, 1995; Robinson, 1996). Despite the high rate of violations reported in the MBA study, the participants reported that some of these violations were repaired by actions they and their employer have taken. Others reported that although they disputed what had occurred between them and their employer, their contract was still essentially fulfilled (Robinson & Rousseau, 1994).

The discrepancies between psychological contract violations and employees' adverse responses to violations brings to light two key questions also faced in the current investigation. What distinguishes different types of technology misuse, and what factors moderate their effects? As in the psychological contract studies, understanding why some events that seem at odds with appropriate workplace behavior provoke little to no adverse reaction, but other events that appear innocuous engender outrage and anger should

reveal how different types of communication technology misuse are experienced by employees and whether and why they differ. For media appropriateness research, these questions address the challenges integrating communication technology in our work lives pose and the potential costs for doing so inappropriately.

In their research identifying patterns of organizational injustice, Harlos and Pinder (1999) conducted an inductive study of work experiences that employees considered unjust. They identified four major patterns of perceived injustice – interactional, distributive, procedural, and systemic – also supported by literature on organizational justice. In all cases unjust treatment consisted of a perceived violation of appropriate workplace behavior. In addition to the four patterns of unjust treatment mentioned above, Harlos and Pinder (1999) identified eight dimensions of behaviors by bosses that participants saw as unjust. The eight dimensions include intimidation, abandonment, inconsistency, degradation, criticism, inaccessibility, surveillance, and manipulation. They note that perhaps their most interesting finding was, "the mistreatment by bosses during informal, everyday interactions as a distinct and significant source of injustice perceptions" (p. 107). It appears that in the course of superior-subordinate communication everyday interactions, rather than special circumstances that heighten our awareness of fair treatment (e.g., performance evaluations, feedback), are the site where mistreatment and perceived violations of normative behavior occur most.

Outcomes of Negative Workplace Communication

Harlos and Pinder's (1999) research has important implications for the present study. Their finding that violations of appropriate behavior occur most in everyday

interactions between superiors and subordinates points to the likelihood that mediated communication, widely used to support these daily interactions, also suffers from inappropriate use or misuse. Additionally, Harlos and Pinder (1999) found employees' unmet expectations of respectful treatment results in a number of negative outcomes for organizations including increased turnover, reduced effort on the part of employees and increased absenteeism and sabotage. In sum, they found the central consequences of injustice to be increased turnover, stress, reduced self-efficacy and productivity, increased frustration and anxiety.

It is likely some or all of the central consequences of injustice experiences for organizations (e.g., reduced productivity) and individuals (e.g., increased stress, decreased self-efficacy) may be shared when communication technology misuse occurs. These outcomes are strikingly similar to Hirschman's (1970) model of individual responses to organizational decline. Hirschman contends customers and employees who are dissatisfied with the declining quality of an organization, its products or services will respond in four ways: through exit, voice, loyalty or neglect. Voice and loyalty are responses that can serve corrective functions in trying to repair the decline, while exit and neglect are destructive and mark an end or diminished relationship. In the case of communication technology misuse, organizational members may likely respond in a constructive, corrective fashion using voice to express their dissatisfaction with the inappropriate behavior and suggest ways to improve it. Along these constructive lines, they may remain quietly loyalty hoping matters will improve. Conversely, they may respond in a destructive a fashion and choose to exit the communication relationship by

halting or withdrawing from interactions or acting out in ways that undermine their communication partner (i.e., rude, untoward behaviors, sabotage). Determining the relative influence of longstanding contextual factors in the organization on media user's exit, voice, loyalty and neglect responses to the declining quality of mediated communication (i.e., inappropriate) is of interest in this study.

Violating the "Spirit" of the Technology

In the present study incidents of inappropriate media use will be generally described as communication technology misuse. Different types of misuse are in violation of the perceived spirit of the technology. In their research on adaptive structuration theory, Poole and DeSanctis (1990) distinguish between two aspects of technological structure: structural features and spirit. Structural features are built into a technology and constitute special capabilities such as the anonymous input of ideas. Spirit, on the other hand, is broadly defined as the "general goals and attitudes that the technology seeks to promote (such as democratic decision-making)" (p. 179). The authors suggest spirit be identified as a text that is open to multiple interpretations. They argue the spirit of the technology is inclusive of the designer's intentions and the users' interpretations of the technology. Of particular relevance to the present study, Poole and Desanctis (1990) acknowledge that these two aspects of structure occasionally contradict each other. Furthermore, the multiple, plausible interpretations of the technology's spirit leave it open to contradictions. For example, when the spirit of the technology is viewed differently by members of an organization and features of the media that are supposed to facilitate decision making are actually used by some members as a barrier against it, a

contradiction is perceived to have occurred. In cases like this one when media users perceive an inherent contradiction in the spirit of the technology and how it is being used in the organization, the perception that technology misuse has occurred is likely. Whether negative communication and technology use-related outcomes occur as a result may be dependent upon the attributions organizational members make to explain the misuse and other contextual factors as will be described in the model.

Poole and DeSanctis' (1990) conceptualizations of faithful and ironic appropriation of communication technology are also usefully applied here. The authors studied the use of group decision support software and argue that a faithful appropriation of technology is when a "group uses the features of a GDSS in a manner consistent with its spirit" (p. 13). If these conditions are not met, they note, users will appropriate the technology in an ironic fashion. In the present model, ironic or unfaithful uses of technology may be perceived as a type of communication technology misuse.

## A Typology of Communication Technology Misuse

King and Xia (1997) note, "Organizations can benefit the most when employees recognize and become familiar with the purpose of each technology and further establish the appropriateness of each technology with the context of the task environment" (p. 143). To date, no examples exist of a study aimed at capturing the scope and complexity of employees' communication technology misuse experiences. Identifying those incidents employees consider to be violations of the spirit of the technology is needed to advance our understanding of media misuse and form a viable, presumably multidimensional model that can be empirically tested.

As noted previously, media appropriateness studies typically ascribe to a managerial bias that places emphasis on the benefits to be enjoyed when an appropriate match between technology and task is made. The present study adopts a receiver's perspective to adequately capture how mismatches between technology and task are experienced and what effects media misuse may have on employees' perceptions of the technology used in the violation, the organization's culture and communication behaviors used in response to media misuse.

In the first part of the study I intend to inductively construct a typology of communication technology misuse to better understand what employee's perceive as inappropriate media use. A typology should allow researchers to make more accurate predictions of which types of misuse are more likely to have an effect on communication responses and work relationships. A typology of communication technology misuse types should also increase the accuracy of predicted behavioral and attitude changes about technology use in organizations. For example, misuse that is attributed to technology features (e.g., using a cell phone with a loud speaker so that confidential work conversations are inadvertently broadcast to others) may be more likely to decrease the perceived usefulness of a certain technology than result in negative communication behaviors. Whereas, misuse that is attributed to a person's behavior (e.g., using speaker phones to discuss private conversations so that unseen others can listen in) may be more likely to elicit negative communication behaviors such as neglecting, sabotaging or exiting the communication relationship.

Because people engage in idiosyncratic social cognitions to make sense of discrepant information, employee's experiences of communication technology misuse may differ widely in their nature and effect. Just as researchers have shown that given the same event, perceptions of mistreatment at work tend to vary according to the personal history and expectations of employees regarding treatment by peers, bosses and other parties (Folger, 1993; Harlos & Pinder, 1999), so too may employees' perceptions of inappropriate media use. As mentioned earlier in the study, violations of normative behavior are the basic occasion for sensemaking and consist of "incongruous events, events that violate perceptual frameworks" (Starbuck & Milliken, 1988, p. 52).

In this study incidents of inappropriate media use will be generally described as communication technology misuse that violates the perceived spirit of the technology, or incidents that violate the "general goals and attitudes that the technology seeks to promote" and are deemed inappropriate (Poole and DeSanctis, 1990, p. 179). Consistent with the suggestions of Poole and DeSanctis (1990) we will otherwise leave this text open to the interpretations of participants in the study so as not to limit or bias participant's descriptions of communication technology misuse. To better understand what employees perceive as communication technology misuse in the workplace, I pose the following research question:

RQ1: What types of communication technology misuse are the most common?

Communication Technology Misuse Intolerance

Given the idiosyncratic social cognitions and comparisons we engage in to make sense of discrepant information, it is no surprise that individuals vary in the extent to which they will tolerate certain behaviors over others. The variability of new employees' tolerance for role ambiguity is a classic example of how differently we tolerate uncertain situations or behaviors in organizational life.

The threshold of communication technology misuse intolerance is defined here as the point at which a person will no longer accept inappropriate uses of communication media without taking action in some manner. Research reviewed earlier indicates that people will respond to inappropriate behavior in the workplace by voicing their dissatisfaction, using corrective feedback and withdrawing from interactions. While it appears to be alluded to media research, direct assessments of media users' intolerance for inappropriate mediated communication behaviors has not been examined.

Conversational Constraint Theory (CCT) suggests people's preferred levels of appropriateness and efficiency change from one context to another (e.g., in face-to-face communication with a friend, and in an email to a coworker). "At times, people outright prefer or are at least willing to tolerate great inefficiency (e.g., committee decision making, talking with a friend), whereas at other times, the demand for efficiency is great (e.g., disaster situations, shotgun weddings)" (Kellerman & Park, 2001, p. 6). In light of CCT the present study suggests media users' vary in the extent to which they tolerate inappropriate uses of communication media. Given this study is an initial attempt at

measuring the extent to which employees are intolerant of other's misuse of communication media in the workplace, the following research question is posed:

RQ2: To what extent are employees intolerant of communication technology misuse in the workplace?

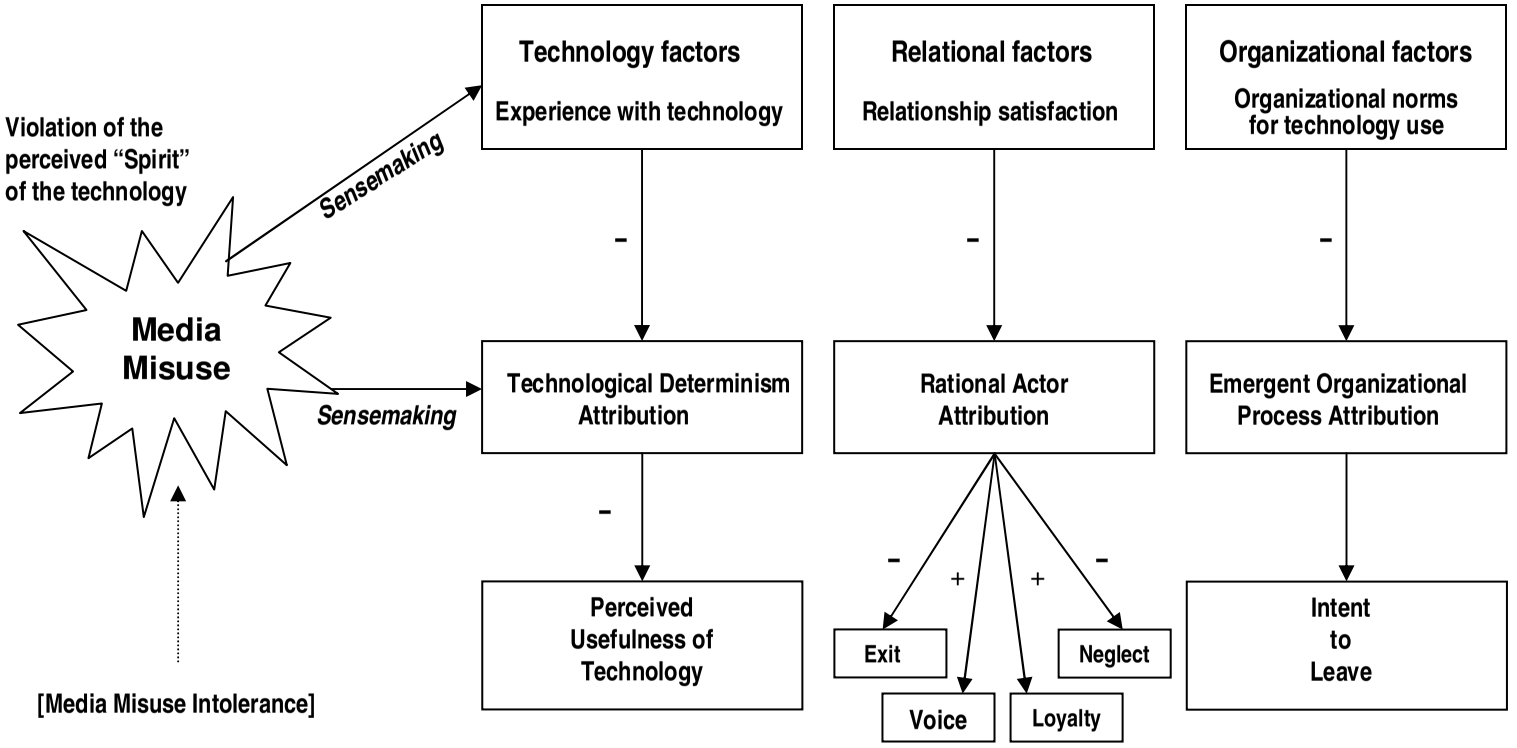
## A Model of Communication Technology Misuse

This study is guided by a model of communication technology misuse that proposes multiple influences on media users' perceptions and behaviors with regard to misuse perpetrators and communication technologies used in misuse incidents (see Figure 1). The point at which communication technology is perceived to have been misused marks the first stage of the model.

The model extends the media appropriateness and social influence research in three important ways. First, the model examines media use and its effects from a process perspective, taking into account the cognitive and communicative processes of organizational members' experiences of technology misuse and communication-related sensemaking and its effect on communication and technology-related outcomes. Second, the model will attempt to capture both the scope and complexity of media misuse by considering media users' overall experiences of different types of communication media misuse in light of the medium used and organizational situation that prompted the incident. Third, the model utilizes a sensemaking perspective to account for the interrelationship of social information processing, attributions, and technology attitudes and behaviors media users process in response to media misuse. Next, the model is presented along with testable hypotheses and research questions.

In order to determine how media users respond when their perceptual frameworks are violated, specifically the relative importance of contextual factors versus attributions organizational members make during sensemaking, we turn next to the sensemaking framework portion of the model.

Figure 2.1: Model of Communication Media Misuse: Influences of attributions and technology, relational and organizational factors on communication strategies, technology perceptions and intent to leave when media use norms for appropriateness are violated.



The behaviors we employ to sort through and make sense of discrepancies in our predictions and our experiences are the coping mechanisms we draw upon when faced with incongruous information and events (Weick, 1995). Weick's conceptualization of sensemaking as a response to discrepant information is argued here as playing a central role in reacting and responding to communication technology misuse. Organizational communication studies of sensemaking have examined the communication behaviors of individuals in light of similar violations of their expectations. Jablin and Kramer (1998) studied how employees confront unforeseen challenges getting adjusted after a job transfer. Similarly, Isabella (1990) investigated the sensemaking of organizational newcomers when faced with discrepant experiences and information. In their study Jablin and Kramer (1998) suggest interruptions in a person's expectations (e.g., a media use violation) should result in "sense-making activity directed at understanding why these events happened and how their expectations may need to be revised" (p. 158). The authors also note:

> To effectively understand what is experienced as an incongruous event, one must possess useful and valid information about the expectations of others and relevant policies and procedures associated with the activity. (Jablin & Kramer, 1998, p. 158).

Yet for employees who perceive communication technology misuse, access to the norms or rules that guide communication processes (in our case these may be formal or informal rules for mediated communication) and the assignment of meanings in the organization

(e.g., symbolic uses of different media distinct to the organization's culture) may be limited. According to Fulk (1993), "Technologies provide unusual problems in sensemaking because their processes are often poorly understood and because they are continuously redesigned and reinterpreted in the process of implementation and accommodation to specific social and organizational contexts" (p. 922).

Weick (1995) suggests there are seven distinguishing characteristics that separate sensemaking from other processes of explaining including understanding, interpretation and attribution. The sensemaking process is (1) grounded in reality, (2) retrospective, (3) enactive of sensible environments, (4) social, (5) ongoing, (6) focuses on and by extracted cues, and (7) driven by plausibility rather than accuracy. Communication approaches seem especially well suited to the study of sensemaking given that most of its characteristics are enacted and regularly articulated through communication behaviors.

In the model presented here sensemaking is the cognitive and, in some cases, communicative activity media users engage in as they reflect on, consider and weigh the contextual factors and attributions that will influence how they respond to communication technology misuse. Sensemaking then, is the process through which communication and technology-related outcomes are determined. This process is explicated here merely to bring attention to the roles contextual factors and attributions play in predicting technology misuse outcomes. However, future studies on technology misuse sensemaking that seek to explain the information-seeking strategies and cognitive machinations of media users as they seek and sort through discrepant organizational, relational and technology cues could enhance the predictive accuracy of the model.

Furthermore, identifying barriers to effective and efficient sensemaking of media misuse, such as ambiguity of roles and media policies, or insufficient access to information about an organization's culture or communication norms, could improve explanations of how and why people respond to different types of misuse.

Attributions for Communication Technology Misuse

In the next stage of the model, it is argued that as part of the sensemaking process media users make attributions for the negative effects of the media and draw on a number of contextual factors to help explain what occurred and direct their responses to it. Attribution theory supports the logic of this argument and is concerned with whether a specific behavior (e.g., the media misuse) is due to a person's personality traits or whether it is due to the situation or circumstances at hand (Heider, 1958).

This portion of the model is an extension of Markus' (1990) research examining the negative effects of electronic communication on social life at work. Markus challenged the technologically deterministic theories that dominated media research at the time, arguing that to blame technological characteristics alone for negative social effects of electronic communication was optimistic at best. What Markus identifies are three different explanations media users have for negative media effects: (1) technological determinism, (2) rational actor and (3) emergent process. I argue these three explanations are the attributions media users make when faced with inappropriate communication technology use. In heeding Markus' (1994) call for greater attention to be paid to the distinction between users' intended and unintended effects when technology is used, I argue media users make situational attributions and place the balance of the blame

for inappropriate media use on either the media user (i.e., rational actor), the unpredictable process of media adoption and use in one's organization (i.e., emergent process), or specific features of the technology (i.e., technological determinism).

Consistent with Markus' (1994) conceptualizations of these three perspectives, one can simultaneously attribute negative social effects of media use to the technology itself, the rational actor and the emergent process. However, in the model presented here I contend the degree to which each of the three are used to explain technology misuse will differ. The attribution that holds the most explanatory power for the media user will guide how he or she responds to the misuse incident in communicating with other organizational members and in future technology use and perceptions. Given that very little is known about attributions for perceived communication technology misuse, the following research question is posed:

RQ3: To what do employees most frequently attribute perceived communication technology misuse?

## Influences of Technology, Organizational and Relational Factors and Misuse Attributions on Communication Outcomes and Intent to Leave

Attributions for inappropriate media use do not, however, occur in a vacuum. Attributions are the vehicle through which we make sense of incongruent information, but these explanations or conclusions are also influenced by other factors that mitigate the situation or media misuse as an event. The theoretical model presented here proposes three sets of long-standing contextual factors influence the situational attributions media users make for technology misuse and are better predictors than the attributions alone of

perceptual outcomes and communicative responses to inappropriate media use. These long-standing contextual considerations, referred to as shadow factors include: aspects of the organization's culture, the technology used in the misuse incident, and relationship satisfaction. Whether these contextual factors of the organization bring added value above and beyond attributions in predicting behavioral and attitudinal outcomes of communication technology misuse will be determined.

The three types of attributions media users make for incidents of inappropriate media use are described next. Following each attribution description, the corresponding shadow factor and its relationship to the attribution are posed along with predicted outcomes.

Technological Determinism. The first type of attribution, technological determinism, explains negative media effects by placing blame on the material characteristics of the technology. For example, the absence of personal or social cues as when technology is perceived as having less media richness might best explain the negative effect. Or, perhaps the presence of new features in the technology may be perceived as causing or influencing the negative outcome.

Interpersonal scholars have conducted attribution research that supports the conclusion that media users may perceive situational factors, more so than dispositional factors, are to blame for media misuse (Fincham, Baucom, & Beach, 1987; Karney, Bradbury, Fincham, & Sullivan, 1994). This research highlights the influence of relationship satisfaction in determining whether attributions will be situational or dispositional. Studies show that when we are in happy relationships we are more likely to

attribute our partner's positive behaviors to dispositional factors and negative to situational (Fincham, et. al, 1987, Fincham & Bradbury, 1989). In those work relationships where communication partners are satisfied, the model presented here suggests media misuse will be attributed to the aspects of the situation, which in this case are the characteristics of the technology used in the misuse incident.

Experience with Technology. As individuals develop experience communicating with a specific type of medium, such as email, they may develop what Carlson and Zmud (1998) describe as a "knowledge base" for more expertly applying the communication technology (p. 155). It is argued that the more experienced media users are with a particular technology, the more effective they are at encoding and decoding rich messages on that medium (Carlson & Zmud, 1998). According to Carlson and Zmud (1998) the increased ability people develop to communicate effectively in different situational contexts correlates with their perceptions that the medium becomes increasingly rich. The mastery of a particular communication channel includes knowledge of appropriate uses of that channel and may bolster media user's confidence in educating others about the proper uses of the media.

The model presented here suggests that following communication technology misuse, the perceived usefulness of that technology will be influenced by whether or not the incident is attributed to the technology, and media users' experience with the technology. Studies of media experience show prior history with sending and receiving messages using the technology influence the extent to which users are knowledgeable about the capabilities of the medium and perceive the medium as more or less rich than

other communication technologies (Fulk, Schmitz, & Ryu, 1995). Likewise, those with more media experience are attuned to its appropriate use in different situations (Shapiro & Anderson, 1985).

The more expertise the media user has with the media used in the incident, the more they are aware of the capabilities of that particular media. Hence, more experienced users of a media used in a misuse incident may be less easily swayed to change their perceptions of that technologies' usefulness. History with the technology may outweigh any negative perceptions elicited by the misuse incident. To test this relationship, I pose the following:

H1: Media users' experience with the technology used in the misuse incident is significantly and negatively related to their attributing the misuse to the technology.

Perceived Usefulness of Technology. Studies of technology use indicate we view different media with differing degrees of usefulness (Davis, 1989). Perceived usefulness is defined as "the degree to which an individual believes that using a particular system would enhance his or her job performance" (Davis, 1993, p. 477). Media research has found a prospective user's overall attitude toward using a given technology is a major determinant of whether or not he or she actually uses it. Davis (1993) reports that "[a]ttitude toward using, in turn, is a function of two beliefs: perceived usefulness and perceived ease of use" (p. 476). In the presence of a communication technology misuse incident, the inappropriate actions of one's communication partner may likely influence the degree to which a certain type of media is useful or not. In particular, those media

users who attribute the misuse incident more so to the technology than their communication partner are more likely to perceive the technology as less useful. To test this relationship, the following hypothesis is posed:

H2: Media users who attribute technology misuse to the technology used in the incident will be more likely to perceive that technology as less useful.

Rational Actor. The second type of attribution people make for negative effects of media is an error on the part of the person sending the message. Markus (1994) proposed and found support for two alternative theories explaining the negative social effects of media use: the rational actor and emergent process perspectives. The rational actor perspective focuses on users' intentions and behaviors. This perspective holds that "impacts result, not from the technology itself, but from the choices individuals make about when and how to use it" (p. 122). This view suggests there are "good and bad uses" of communication technology (Markus, 1994, p. 123). Furthermore, it suggests "bad uses" might be rational when users want to achieve negative social impacts (e.g., when social distance is desirable) and when the benefits of using the media outweigh the negative social effects. Thus, the rational actor attribution "focuses on users' intentions and behaviors, such as whether they deliberately use technology in ways likely to achieve or avert negative social effects" (Markus, 1994, p. 125). The person behind the message and the medium is to blame for the outcome, whether it was intended or not.

Research on attribution theory and relationship satisfaction has found that in unhappy relationships we are more likely to use situational factors to explain positive

behaviors and dispositional factors to explain negative variables (Karney, Bradbury, Fincham, & Sullivan, 1994; Vangelisti, 1992). As applied in the model presented here, media users may be more likely to attribute communication technology misuse to "the rational actor" in work relationships that are already strained and in which they are already dissatisfied. Thus the following hypothesis is posed:

H3: Media users' satisfaction with their communication partner is significantly and negatively related to their attributing the communication technology misuse to that person.

Exit, Voice, Loyalty, and Neglect

Originally applied in the field of economic theory, Hirschman's (1970) exit-voice framework considers how dissatisfied employees and customers respond to organizational decline. Hirschman (1970) argues organizational stakeholders (i.e., customers, employees) who are dissatisfied with an organization or its products or services will respond in one or more of the following ways: exiting the organization, using voice to complain or correct the source of dissatisfaction, remain loyal to the organization, or neglect their relationship with the organization. The framework has been applied in studies of managerial attachment (Cannings, 1989), employee retention (Farrell & Rusbult, 1985), opportunities for voice in expressing dissent in participative-management settings (Kassing, 1998), and to develop an integrative model of responses to declining job satisfaction (Rusbult, Farrell, Rogers, & Mainous III, 1988).

Prior research on exit indicates it is the most frequent response to decline or organizational and individual ineffectiveness (Cannings, 1989). It is likely media users' propensity to exit interactions with communication partners who behave inappropriately is influenced by their satisfaction with the person using the technology. To test this relationship, the following hypothesis is posed:

H4: Media users who are not satisfied in their relationship with their communication partner will be more likely to use the communication strategies of exit and neglect in response to communication technology misuse.

Hirshman (1970) notes voice has a number of advantages over exit, yet researchers have found the use of voice is difficult predict. For example, in a study of graduates from a University business program Withey and Cooper (1989) found that dissatisfied employees who exited their organization were influenced by the costs and the efficacy of their responses as well as by their employer. The same study found that employees who used voice to express their dissatisfaction were very difficult to predict. Other studies have shown employees who have a positive attachment or strong positive affiliation with the declining organization satisfaction are more likely to use voice in an attempt to express their concerns over the declining quality of the organizations, its good or services (Bender & Sloane, 1998). When faced with a communication technology misuse, how satisfied employees are with their communication partner is likely to influence whether they will use voice as a corrective mechanism to respond and possibly attempt to change future inappropriate behavior. Thus, I pose the following:

H5: Media users who are satisfied in their relationship with their communication partner will be more likely to use the communication strategy of voice in response to technology misuse.

In a similar vein, the more satisfied media users are with their communication partner, the more likely they will be to respond in other constructive, though perhaps less active, ways to media misuse. The positive affinity media users have for their communication partner may encourage media users to simply remain quiet and loyal to their communication partner despite placing blame on them for the misuse incident. Recent research on disengagement from work relationships by Sias and Perry (2004) provide support for these claims. They indicate that when responsibility for the event is in question and may not be the rest solely on the coworker, or when individuals feel sympathy for coworkers, employees may be less likely to respond punitively. In these situations, coworkers may adopt more passive, less face-threatening responses such as loyalty and neglect are used.

> Less explicitly face-threatening, depersonalization nevertheless was similarly associated with the reason for the deterioration. In particular, depersonalization was more likely to be used in betrayal, conflicting expectations, and problem personality situations then in promotion situations. Again, a primary difference between these situations may be the extent to which one perceives the target to be responsible for the situation. (Sias & Perry, 2004, p. 598).

The following hypothesis was posed to test this relationship in the model.

H6: Media users who are satisfied in their relationship with their communication partner will be more likely to use the communication strategy of loyalty in response to technology misuse.

Emergent Organizational Process Perspective. The third attribution media users may draw upon is the emergent process perspective. In this view, negative effects of communication media are attributed to the complex process inherent in technology use and adaptation. Emergent process theory, argues Markus (1994), "does not attribute the negative consequences entirely to the features of the technology…negative outcomes may ironically originate in the very actions people take to prevent negative effects and ensure positive outcomes" (p. 124). The emergent process attribution, then, considers collective, normative definitions of what we perceive technology is good for and "accepts the possibility that negative effects might occur despite the well-intentioned behaviors of media users" (p. 125). An emergent process explanation is also a way of giving the violator the "benefit of the doubt." As supported by research indicating we are more likely to attribute negative outcomes to situational factors the more satisfied we are in relationships, it is likely emergent process attributions will be more common in satisfactory work relationships (Fincham, et. al, 1987, Fincham & Bradbury, 1989).

Organizational Norms for Technology Use. The third and last contextual factor likely to lead to emergent process attributions centers on a feature embedded within the organization, the organization's technology use culture. Schein (1985) defines organizational culture as "a pattern of basic assumptions–invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration" (p. 9). According to Trice and Beyer (1993) we generate ideologies to tell us how to make sense of the world and these ideologies form the substance of cultures. Rather than use a rational belief system, these ideologies are

relatively implicit sets of taken-for-granted beliefs, values, and norms. Organizational cultures help us cope with uncertainties by providing us with accepted, normative (to that context) ways of expressing and affirming our beliefs (Trice & Beyer, 1993).

Trevino and Victor (1992) indicate the social context within an organization provides norms and expectations as well as rewards and punishments that can influence organization members' attitudes, beliefs, and behaviors. In the context of mediated communication, DeSanctis and Poole (1994) further highlight the influence of culture in their development of adaptive structuration theory (AST). The theory assumes that groups draw on social structures as rules and resources for subsequent group interaction. The social structures are generated from cultural values, prior experiences interacting in groups, and management philosophies and procedures among other experiences in one's organization (DeSanctis, Poole, Dickson, & Jackson, 1993). In the model, the relative strength or embeddedness of existing cultural norms for technology use in the organization are likely to influence emergent process attributions because they draw attention away from the communication partner and require the media user to consider organizational factors that may explain technology misuse. If cultural norms for appropriate technology use are weak and not well known or shared, media users may be more likely to attribute communication technology misuse to the "emergent process" of technology use where the communication partner and the technology and the organization are to blame. Alternatively, when inappropriate technology use occurs in an organization where cultural norms for technology use are strong and widely shared,

media users may experience them more intensely with greater negative outcomes for their communication partner and the organization.

H7: Media users' perceived strength of their organization's cultural norms for technology use is significantly and negatively related to their attributing the communication technology misuse to the emergent process.

Intent to Leave. Given the potentially inflammatory rational actor attribution and more benign technology attribution (that is, unless you are the technology implementation manager), placing blame on the emergent process of technology use and the uncertainties of organizational life appears to carry little stigma for the person using the technology inappropriately or perceptions of the technology being used. However, it is likely emergent process attributions do have a negative effect on an employee's satisfaction with their job and the organization they work for. This may be particularly so in cases where communication technology misuse is intensely experienced, or it represents a pattern of inappropriate behavior in the organization. The types of communication technology misuse constructed in this study may indicate certain types of misuse are experienced very differently than others. In cases where an employee's communication technology misuse tolerance is very low, an emergent process attribution may carry just as much weight, or perhaps more, as one where their communication partner or the technology is blamed for the event for the reasons just described.

In a description of theories of turnover, Bluedorn (1982) explains withdrawal from work as a general phenomenon experienced by organizational members and turnover is one of many manifestations of this phenomenon. Researchers have dedicated

an extensive amount of effort, theoretical and empirical, to investigating turnover in organizations (Hom & Griffith, 1995; Hulin, Roznowski, & Hachiya, 1985; Price & Mueller, 1981; Steers & Mowday, 1981). Given the complexities researchers face of examining behavioral turnover, antecedents of turnover have become a more accessible avenue for investigating withdrawal attitudes and behaviors. Tett and Meyer (1993) describe turnover intention (also referred to as intent to leave) as "a conscious and deliberate willfulness to leave the organization" (p. 262). Intent to leave, "is the last in the sequence of withdrawal cognitions in which an employee actively considers quitting and searching for alternative employment" (Scott, Connaughton, Diaz-Saenz, Maguire, Ramirez, Richardson, Pride Shaw, & Morgan (1999, p. 403). Several antecedents of intent to leave have been identified by researchers including: job satisfaction, organizational commitment, demographic characteristics, supervisor and coworker communication, and identification. Scott et. al (1999) found employees communication relationships with their supervisors and coworkers predicted a significant amount of variance in intent to leave. They noted further that the adequacy of communication in these work relationships "serves to reduce workplace uncertainty, adding a sense of stability to one's job" (p. 423). Scott et al's (1999) findings provide particular insight in the present investigation because they illustrate the distinction between adequacy of communication (i.e., a technology misuse incident) and supervisor/coworker communication (i.e., person-specific attributions) and the different role they play in predicting intent to leave. Scott et al. (1999) found it was the two relationship variables of supervisor and coworker communication, rather than the information adequacy measures

that were most predictive of turnover intent. They argue "quality communication relationships may create a work climate that encourages one to continue with the organization" (p. 424).

In the present study, it is likely when both one's organization and communication partner are to blame for negative communication behaviors (i.e., communication technology misuse), negative attitudes about the organizational culture will be intensified as will one's intent to withdrawal from or leave the organization. To test this relationship, the following final hypothesis is posed:

H8: A significant and positive relationship exists between employees who attribute a communication technology misuse incident to the emergent process and intent to leave the organization.

## Chapter Summary

In the first portion of this chapter an explanation of how communication technology misuse is conceptualized in the study, along with research that informs individual's experiences of inappropriate behavior in the workplace, were outlined. Communication technology misuse is conceptualized as media use that violates the perceived spirit of the technology, or general goals and attitudes that the technology seeks to promote and are deemed inappropriate (Poole & DeSanctis, 1990). The second portion of the chapter outlined the typology of communication technology misuse to be constructed. The third and final section of the chapter introduced a theoretical model of communication technology misuse. The model is guided by a sensemaking framework that considers the cognitions of media users as they make situational attributions for

technology misuse and weighs the relative importance of three types of contextual factors that guide normative communication behavior in organizations. Likely technology, organizational and communicative outcomes of communication technology misuse were also presented, completing the process outlined in the model. Generally, the model proposes long-standing contextual factors will better predict technology, relational and communicative outcomes than situational attributions media users make for technology misuse alone.

A series of research questions explore what characteristics are associated with perceived communication technology misuse, the extent to which media users' intensity of misuse incidents vary, and the most frequent attributions for perceived technology misuse. A series of testable hypotheses were also presented with descriptions of each portion of the model. These hypotheses predict the relative influence of three types of contextual factors, technological, organizational, and relational on technology and relationship outcomes and communicative strategies (i.e., exit, voice, loyalty, and, neglect) used in response to technology misuse. The next chapter describes the research design, sample, methods, and instrumentation to be used in the study.

# CHAPTER 3: METHODS

Sufficient evidence exists to support using communication media in appropriate ways when strengthened communication relationships and other positive communication outcomes are the desired result. However, a clear portrait of what inappropriate media use looks like and its effects on work relationships that would provide further support for this argument has not yet been drawn. The purpose of the proposed study is twofold: (1) to identify types of communication technology misuse and (2) to further extend media appropriateness research by developing and testing a model of communication technology misuse. The nature of the research problem, understanding the complexity and scope of communication technology misuse and determining the relative influence of attributions and contextual factors on behavioral and attitudinal outcomes necessitated gathering qualitative data for the first portion of the problem and quantitative data for the second.

## Research Design

A multimethodological research design to accommodate the collection of both qualitative and quantitative data was used in the study. The first goal of the study was to generate a typology of communication technology misuse in order to better understand the phenomenon of interest. Given the exploratory nature of the study, this was done in two ways. First, a deductively generated list of 15 known types of communication technology misuse was created, culled from popular press articles about inappropriate media use and informal interviews with media users about the types of incidents they perceive as media misuse. Questionnaire respondents were asked to indicate the extent to

which they experienced each type of misuse and the extent they viewed each type of misuse as a major concern. Second, an inductively generated list of communication technology misuse types was created from stories of misuse incidents described by respondents in the study. Given the exploratory nature of the study, and the need to define what characteristics specify different types of misuse, this qualitative data represents a substantial contribution to media appropriateness research. In addition, separate tests of the attribution process and relationships in the model represent another clear and meaningful extension of media theory and of negative media effects research while increasing the generalizability of the study. A cross-sectional survey technique was also used in the study to determine how communication technology misuse attributions and contextual factors (e.g, technology, organizational, relational) influence important outcomes of technology misuse in organizations.

Qualitative Methodology Rationale. In order to generate a typology of communication technology misuse types, qualitative data was gathered in the study in the form of an open-ended question at the beginning of the questionnaire asking participants to describe a communication technology misuse incident. The open-ended question was included in the study to elicit respondent-derived characteristics of technology misuse beyond indicating that technology misuse is perceived to have occurred as is the only assumption of the quantitative data used to test the model in the study. The open-ended question is designed to capture the nature and scope of communication technology misuse and to ascertain descriptions of the organizational situation and communication task engaged in when the incident occurred as well as other not yet identified

characteristics of technology misuse incidents. Qualitative data is a good match for this task because it examines the qualities (attributes, characteristics, properties) of phenomena where the data tend to be continuous rather than discrete and the emphasis is on description and explanation rather than measurement and precision (Fitch, 1994). This is consistent with Poole and DeSanctis' (1990) caution to avoid limiting interpretations and descriptions of the perceived spirit of technology. Fitch (1994) advises that for a qualitative study itself to be counted as evidence, (1) the findings should be situated in the activity and not assumed a priori and (2) findings should be translatable to other studies. According to McCracken (1988), "qualitative methods are most useful and powerful when they are used to discover how the respondent sees the world" (p. 21).

As noted by Stern (1980), qualitative methods can also be used to explore areas about which we know a little or a lot to gain new or novel understandings. Media effects and media appropriateness are fairly well-researched topics about which we have substantial knowledge. However, the inappropriate use of communication technologies and how people react when these media are misused are subjects about which we know very little. Both areas are ripe for gaining new and novel understandings using qualitative data.

Triangulation Rationale. Jick (1979) suggests multiple methods increase the potential for different methods to compensate for the other's weaknesses. Between-method triangulation, when both quantitative and qualitative methods are used, can increase the likelihood of gathering reliable and valid data (Kirk & Miller, 1986). Respondents' self-reports of perceived communication technology misuse, the

attributions they make to explain it, the contextual factors that inform those attributions, and the perceptual and behavioral outcomes that occur as a result of the perceived misuse will be elicited by means of a self-administered online questionnaire. Babbie (1995) cites the advantages of using a self-administered questionnaire including "economy, speed, lack of interviewer bias, and the possibility of anonymity and privacy to encourage more candid responses on sensitive issues" (p. 277). Spector (1994) observes that self-reports are a commonly used method of data collection in organizational studies with demonstrated construct validity (Howard, 1994). In a review of a cross-section of studies which used self-report methods, Howard (1994) found the validity coefficients of self-reports were equal or superior to the construct validity of other measurement approaches.

According to Metts, Sprecher and Cupach (1991), retrospective self-reports are appropriate for studying interactional information such as superior-subordinate and coworker communication. They report this type of interactional information is stored in a person's memory and can be retrieved. Two major theoretical advantages of self-report methods are that they allow researchers to (1) explore a broad domain of individual experience that contributes to theory building and testing and (2) they can account for the complex, multidimensional nature of interaction constructs and the multi-causal nature of phenomena (Metts, Sprecher & Cupach, 1991).

Disadvantages of survey research include an appearance of superficiality in the coverage of complex topics, a lack of opportunity for the researcher to probe further, and a lack of control over incomplete survey responses (Babbie, 1998; Frey, Botan, Friedman & Kreps, 1992). Babbie contends that surveys are subject to the artificiality inherent with

experiments. However, despite these weaknesses Babbie argues that full awareness of the limitations of a particular research method can serve to partially resolve them. While keeping the previously listed limitations in mind, the theoretical advantages of surveys to test theories and accommodate complex constructs in an efficient and economic manner make it the best method to explain the process of communication media violation.

Procedures

A convenience sampling method was used in the study. More than 200 people ages 18-80 who use communication technology (e.g., cell phones, email, fax, instant messaging) at work were contacted about the study by the researcher or an immediate contact. Benter & Chou's (1987) recommendation for sample size when using path analytic techniques is based on 15 cases per measured variable in the study. In this case, 11 total variables are included.

A cross-industry distribution was sought to create a data set that would likely yield greater variability of communication technology misuses and technology use norms as well as improve the generalizability of the findings to workers who use communication technology at large. Participants were recruited using a snowball sample of individuals within the researcher's and acquaintances' professional and personal networks. Specifically, members of different organizations, including but not limited to, three software companies, a county services office, all teachers in a school district, a law firm, and two nonprofits were recruited to participate in the study.

All participants were initially contacted via email. Respondents were asked to recruit other respondents across industries to improve the generalizability of the findings.

The email contained a brief statement regarding the purpose of the study, the criteria for participating, how respondents can benefit by participating, and a direct link to the specific website (see Appendix A). The main web page contained a detailed description of the study, potential risks, contact information and instructions for participation, as well as the questionnaire itself. An additional incentive was offered to participants in the form of a drawing for a $100 gift certificate at Lowe's, Home Depot, or OfficeMax which respondents could enter online by submitting their email address using a "enter drawing" link. The drawing commenced at the end of the data collection period.

Respondents

Due to the sampling frame used in the study, it is impossible to ascertain an exact figure of how many organizational members were contacted to participate in the study. However, based on promotion efforts and feedback from respondents who assisted in distributing the questionnaire via email to friend and professional networks, a best guess approximation of 200-300 organizational members were initially contacted to complete the study. Later, 139 questionnaires were submitted via email for a response rate ranging from 46 to 69 percent. Of these 139 completed surveys, 25 contained too many unanswered questions to be included in the study. These were subsequently filtered out of analyses testing the research questions and hypotheses.

Demographic information obtained on the survey focused both on personal aspects of recipients (i.e., sex, age, ethnicity) and on aspects of their organizational membership (industry, position, tenure at organization, size of organization). Of the 114 respondents in the final sample, 68 percent were female ($n = 73$) and 34 percent were

male (n= 39). Two respondents did not indicate their sex. Respondents ranged in age from 20 to 61 or older. See Tables 1 and 2 for a more detailed demographic breakdown of the sample. Respondents represented a cross-section of 15 different industries, the majority of them in white-collar jobs. Employees who work for small, mid-sized and very large organizations were all represented in the study. More than 65 percent of the respondents held lower level positions as entry level employees (n = 52, 47.3%) and front-line supervisors (n = 20, 18.2%). Almost 15 percent of respondents held higher-level positions of managers (n = 11, 10%) or vice presidents (n = 5, 4.5%). Twenty percent of the respondents (n = 22, 20%) held the highest position in their organization (e.g, CEO, founder, owner, director, partner). Respondents in the study had worked at their organization long enough to be able to identify organizational norms for communication technology use if they were present. Most of the respondents had worked for their organization between 1-5 years (n = 64, 57.7%). Only 16 had worked for their organization less than one year (14.4%). Thirteen respondents worked for their employer 6-10 years, and the remaining 18 worked for their organization 11 or more years. The average tenure of respondents with their organization was 16.2 years.

Table 3.1

*Descriptive Statistics for Personal Characteristics of Sample*

| | *n* | *f* | Missing cases | Percent |
|---|---|---|---|---|
| Sex | 112 | | 2 | |
| Female | | 39 | | 34% |
| Male | | 73 | | 65% |
| Age | 113 | | 1 | |
| 20-30 | | 32 | | 28% |
| 31-40 | | 29 | | 26% |
| 41-50 | | 30 | | 26% |
| 51-60 | | 20 | | 17% |
| 61 or older | | 2 | | 2% |
| | 113 | | | |
| Ethnicity | | | 1 | |
| White | | 104 | | 92% |
| African-American | | 0 | | 0 |
| Asian-American | | 1 | | .9% |
| Hispanic | | 4 | | 3.5% |
| Pacific Islander | | 1 | | .9% |
| Other | | 3 | | 2.7% |

Table 3.2

*Descriptive Statistics for Organizational Membership Characteristics of Sample*

| | n | *f* | Missing cases | Percent |
|---|---|---|---|---|
| Industry | 111 | | 3 | |
| Arts, Design, Entertainment, Sports & Media | | 4 | | 3.6% |
| Business & Financial Operations | | 5 | | 4.5% |
| Community and Social Services | | 15 | | 13.5% |
| Computer & Mathematical | | 12 | | 10.8% |
| Construction and Extraction | | 1 | | .9% |
| Education, Training, and Library | | 48 | | 43.2% |
| Farming, Forestry, and Fishing | | 1 | | .9% |
| Healthcare Practitioners & Technical | | 6 | | 5.4% |
| Healthcare Support | | 4 | | 3.6% |
| Legal | | 2 | | 1.8% |
| Life, Physical, & Social Science | | 3 | | 2.7% |
| Management | | 2 | | 1.8% |
| Personal Care & Services | | 1 | | .9% |
| Sales & Related | | 6 | | 5.4% |
| Transportation and Material Moving | | 1 | | .9% |
| Size of Organization | 113 | | 1 | |
| Less than 50 | | 35 | | 31% |
| 51-100 | | 19 | | 16.8% |
| 101-500 | | 33 | | 29.2% |
| 501-1000 | | 6 | | 5.3% |
| 1000 or more | | 20 | | 17.7% |
| Position | 110 | | 4 | |
| Employee | | 52 | | 47.3% |
| Front-line supervisor | | 20 | | 18.2% |
| Mid-level manager | | 11 | | 10% |
| Vice President | | 5 | | 4.5% |
| Other | | 22 | | 20% |
| Tenure | 111 | | 3 | |
| Less than 1 year | | 16 | | 14.4% |
| 1-5 years | | 64 | | 57.7% |
| 6-10 years | | 13 | | 11.7% |
| 11-15 years | | 9 | | 8.1% |
| More than 15 years | | 9 | | 8.1% |

Instrumentation

Major variables in the study were measured with a total of 74 questions regarding organizational members' self-reports of perceived communication technology misuse, the attributions they make to explain the misuse, and the contextual factors that influence them (see Appendix B). Some of the indices were constructed specifically for this study while others were modified for use in this study. Each of the indices is described in the following subsections.

Communication technology misuse types. As mentioned previously, a deductively generated list of 15 known types of communication technology misuse was created for part one of the study. These types of media misuse were culled from popular press articles about inappropriate media use and informal interviews with media users about the types of incidents they perceived as media misuse. Questionnaire respondents were asked to indicate the frequency with which they experienced each type of misuse and the extent they viewed each type of misuse as a cause of concern. The instructions were as follows, "Please answer the following questions about communication incidents that have happened to you in the past year and answer the questions in the two columns at the right. Select the column NA if the question Does Not Apply." The first question to the right read, "I experience this misuse of communication technology…" The endpoints for this question were, "Very Infrequently" and "Very Frequently." The second question to the right read, "How troubled are you by this type of incident?" The endpoints for this question were "Minor Nuisance" and "Major Concern."

Respondents read the following lead in question, “Has someone you worked with…” and were asked to answer the following 15 questions about different types of media misuse: “Used the wrong communication technology to send you a sensitive message?” “Used the wrong communication technology to send you a detailed message?” “Used the wrong communication technology to send you a personal message?” “Used communication technology to send you a message in order to avoid direct contact with you?” “Used the communication technology to send you a message in a way you had agreed not to use it?” “Not followed the normal practices of how your work group uses technology to send a message?” “Broken the widely understood rules for how technology should be used to send messages?” “Broadcast a message they were sending you to others who should not have received it?” “Used communication technology in an offensive way when sending you a message?” “Overused communication technology (the same technology or different types) to send you the same message many times?” “Used the wrong communication technology given the urgent/not urgent nature of the message?” “Used poor timing when sending you a message (too slow or too soon) using communication technology?” “Sent you a message using communication technology when background noise or other distractions were obvious in the message?” “Acted unprofessional when sending you a message using communication technology?” “Appeared less competent as a communicator while sending you a message using communication technology?”

Communication Technology Misuse Intolerance. Part two of the study measured the extent to which respondents perceive they are intolerant of communication

technology misuse. Communication technology misuse intolerance is defined in this study as the point at which media users take action rather than tolerate a violation of appropriate media use. Media misuse intolerance was measured with five items assessed on a 7-point Likert-type scale developed for this study. The scale development was informed by research on intolerance and tolerance for certain behaviors including tolerance for ambiguity and Conversational Constraint Theory which examines varying levels of intolerance for efficiency in communication (Kellerman & Park, 2001). The instructions read, **"**Please answer the following questions about how you usually react when people you work with communicate with you and misuse the communication technology such as email, cell phones, or other types of technologies (company intranet, fax, instant messaging). Please indicate the degree to which you agree with each statement."

Communication technology misuse intolerance was measured with the following five items: "I am patient with other people when they use technology inappropriately," "It drives me crazy when people use communication media in the wrong way," "When people use technology the wrong way it doesn't bother me," "Usually I am tolerant of others when they inappropriately use communication technology," "I get upset when people do not use communication technology the way they are supposed to." The items appear as questions 1-5 on part two of the survey (see Appendix B). Respondents indicated to extent to which they disagreed or agreed with each statement using a seven-point Likert-type scale (1=strongly disagree to 7= strongly agree). The internal reliability (Chronbach's alpha) for the intolerance index was .86.

Communication Technology Misuse Incidents. In order to elicit descriptions of perceived communication technology misuse, in part three of the study participants were given the following instructions: "In the text boxes below please provide up to two stories of times in which you had a negative reaction to someone you work with who misused technology when communicating with you. Include as much detail as possible about who the people were and what was happening when this occurred." To ensure there were no restrictions in the open-ended question where employees describe the media misuse incident, the online questionnaire was formatted such that the length of a respondent's answer was not be restricted by the text box. Next, respondents were asked to indicate which communication media was involved in the incidents described in their stories from the following list: "Email, Cell phone, Voice Mail, Phone, Fax, Instant Messaging, Other." Respondents were also asked to indicate whether the incidents they described involved "a Superior, Subordinate, or Coworker."

## Independent Variables

After describing up to two communication media misuse incidents, participants were then asked to select one of the stories about which to answer the remaining questions on the questionnaire. Media misuse frequency was measured using a 7-point Likert-type scale anchored by "single-event" to "pattern." The item read, "This type of communication technology misuse by my communication partner is a _____."

Media misuse severity. Media misuse severity was measured with a four-item index created for use in this study. Each item used a 7-point scale anchored by "Strongly Disagree" to "Strongly Agree." The items were, "The incident I described was a severe

violation of appropriate behavior." "The incident I described was a mild violation of appropriate behavior." "The incident I described was very inappropriate." "The incident I described was inappropriate, but only mildly." The internal reliability (Chronbach's alpha) for the index of Media misuse severity was .83.

Message Valence. Message valence, whether the content of the message was positive or negative, was measured using a four-item index created for use in this study. Each item used a 7-point scale anchored by "Strongly Disagree" to "Strongly Agree." The items were, "The message my communication partner was sending me was good news." "The content of the message was negative." "My communication partner was sending me a message that was positive." "My communication partner was sending me a message that was bad news." The internal reliability (Chronbach's alpha) for the index of message valence was .84

Job Relevance of Message. The job relevance of the content of the message was measured using a four-item index created for use in this study. Each item used a 7-point scale anchored by "Strongly Disagree" to "Strongly Agree." The items were, "The message my communication partner sent was personal." "My communication partner was trying to tell me something job related." "The message was about my job." "My communication partner was sending me a message about a personal topic." The internal reliability (Chronbach's alpha) for the index of job relevance was .78.

Attributions

The items measuring the relative strength of attributions media user's make for the media misuse they perceive were constructed for this study and are based on Markus

(1990) three explanations for negative media effects and adapted for this study.

Technological Determinism was measured using the following four items "Features of the technology (or lack of them) resulted in the negative incident." "The communication technology is at fault for the incident" "Characteristics of the technology are completely to blame for the negative effect the communication had." "This incident happened because of the communication technology and nothing else." Each item used a 7-point scale anchored by "Strongly Disagree" to "Strongly Agree." The internal reliability (Chronbach's alpha) for the index of technological determinism was .75.

Rational Actor was measured using these four items, "I place the most blame for this media misuse on my communication partner." "My communication partner intended to use the technology to have a negative effect." "My communication partner behaved in such a way that it is clear a negative effect was intentional." "My communication partner is fully aware of the potential for negative outcomes when using the technology in this way." And, lastly "The deliberate actions of my communication partner are to blame for the incident." The internal reliability (Chronbach's alpha) for the index of rational actor was .78.

The Emergent Organizational Process attribution was measured using four items, "Even though my communication partner's intentions were good and the technology worked great, there was still a negative effect because of how this technology is used in my organization." "Despite the positive features of the technology and my communication partner's good intentions, there was still a negative effect because of how this technology is used in my organization." "It wasn't the fault of my communication

partner or the technology, sometimes these things happen in my organization." And, finally, "My organization is completely at fault for this incident." The internal reliability (Chronbach's alpha) for the index of emergent organizational process was .54.

Technology Experience. Four items were used to measure experience with the technology involved in the incident. The first two items used were originally created by Carlson and Zmud (1994) and have been found to be reliable in other studies (.95). The first two items were adapted slightly for this study and the second two were created for this study. The items are "I am very experienced at using this type of technology" and "I feel that I am a novice at using this type of technology." "I have used this technology a lot." "I use this technology all the time." The internal reliability (Chronbach's alpha) for the technology experience index was .86.

Organizational Norms for Technology Use. For the purposes of the present study, the extent to which the organization has strong norms for how technology should be used was measured with the following four items: "I am unsure of how this communication technology is supposed to be used in my organization." "There is an assumption in my organization that this technology will be used in certain ways." "It is clear in this organization what purposes one can use this technology for in communicating with others." "It is informally understood around my organization, that technology will be used in specified ways to communicate with each other." The internal reliability (Chronbach's alpha) for the strength of organizational norms for technology use index was .73. The development of these items informed by Gundry and Rousseau's (1994) study and understanding of critical incidents in communicating culture to organizational

newcomers. Their model proposes that newcomers encounter discrete events and, in turn, interpret these events creating a frame that shapes their perceptions of organizational norms. Newcomers' adherance to these norms further reify and confirm the norm's strength.

Relationship Satisfaction. A four-item measure of relationship satisfaction was also included in the study. The items are "I am very satisfied in my relationship with my communication partner." "I am unsatisfied in my relationship with my communication partner" (reverse coded). "In general, I dislike communicating with my communication partner" (reverse coded). And, "I enjoy my relationship with my communication partner." The internal reliability (Chronbach's alpha) for the relationship satisfaction index was .88.

## Dependent Variables

Perceived Usefulness of Technology. A 10-item measure of perceived usefulness of technology developed by Davis (1989) was used in the study. In two studies by Davis (1989; 1993) the scale was shown to have a high degree of convergent and discriminant validity (.97). Four sample items include "Using this technology improves the quality of the work I do." "Using this technology improves my job performance." "Using this technology makes it easier to do my job." "Overall, I find this technology useful in my job." The internal reliability (Chronbach's alpha) for the index of perceived usefulness of technology was .98.

Exit, Voice, Loyalty, and Neglect. The four hypothesized communicative responses to media misuse, exit, voice, loyalty, and neglect were measured using scales

adapted from a study by Rusbult, Zembrodt and Gunn (1982). Reliability analysis in that study revealed significant alphas for exit (.86), voice (.80), loyalty (.65), and neglect (.74). Theoretically, exit, voice, loyalty, and neglect responses differ along two dimensions of constructive/destructive behavior and active/passive behaviors. Rusbult et al. (1982) maintain voice and loyalty are constructive responses that are "generally intended to maintain and/or revive the relationship" (p. 1231). Whereas, exit and neglect are intended or interpreted generally as destructive responses. A similar dichotomy exists between the active/passive dimension of the responses. "Exit and voice are passive behaviors (i.e., the individual is doing something about the relationship), whereas loyalty and neglect are more passive responses" (Rusbult et al., 1982, p. 1231).

Exit. The measures of exit, voice, loyalty, and neglect consist of 7-point Likert-type scales. The four items measuring exit are: "I severed my communication ties with this person." "I decided not to communicate with this person." "I ended my communication relationship with this person." "I decided my communication partner and I should go our separate ways." The internal reliability (Chronbach's alpha) for the exit index was .96.

Voice. The four-items measuring voice include: "I mentioned the behavior that bothered me about this incident to my communication partner." "I told my communication partner I had a negative reaction to how they used the technology in the incident." "I made a serious effort to make my communication partner improve his/her use of this technology after this incident." "I suggested changes in how this technology

should be used to other people I work with after this incident." The internal reliability (Chronbach's alpha) for the voice index was .87.

Loyalty. The six-item measure of loyalty consists of following items: "Despite this incident, I will say good things about _____even when other people criticize him/her." "Because of this incident, I will no longer wait patiently for _____to improve how they use technology on the job." "Despite this incident, I think that _____is probably as good as most at communicating with this technology." "Despite this incident, I will quietly stick with _____ through good and bad times." "Because of this incident, I will not speak highly of _____ to others." "Despite this incident, I will work harder to improve my communication with _____." The internal reliability (Chronbach's alpha) for the loyalty index was .76.

Neglect. The four-item measure of neglect consists of the following items: "Due to this incident, I have lost motivation for communicating with _____." "Due to this incident, I feel like avoiding communication with _____." "After this incident, I feel like putting less effort into communicating with _____." "I care less about communicating with _____ because of this incident." The internal reliability (Chronbach's alpha) for the neglect index was .95.

Intent to Leave. The final dependent variable, intent to leave, was assessed with a four-item scale adapted from Scott, et. al (1999) with an established .83 reliability. The items in the intent to leave measure are: "I would prefer to work for a different organization than the one I now work in." "I have thought seriously about changing jobs since I began working here." "I hope to be working for this organization for a long time."

"I seriously intend to look for another job within the next year." The internal reliability (Chronbach's alpha) for the intent to leave index improved slightly in this study, it was .88.

Analysis

Research question one sought to determine which types of communication technology misuse are experienced the most frequently. Descriptive statistics and frequencies for the 15 types of media misuse were calculated. The most frequent types of misuse described in the stories were also calculated following content analysis. Research question one seeks to both identify the frequency of certain types of misuse, and distinguish between different types of communication technology misuse. A content analysis of the qualitative descriptions of the media misuse incidents was conducted. The list of 15 different types of communication technology misuse identified previously provided the basis for identifying and naming the categories of misuse types. Clear instructions were given to account for alternative types of misuse or reinterpretations of misuse. Any discrepancies were discussed between the primary researcher and research assistant. In addition to coding for the 15 different types of misuse listed earlier and any additional categories of misuse, coders also identified the communication task respondent's were engaged in during the incident. The theoretically meaningful unit of analysis coded were the written descriptions of the communication situation offered by study participants (Krippendorff, 1980). These descriptions of media misuse were sorted into 11 categories of communication tasks identified in a study of media appropriateness by King and Xia (1997). The categories are: (a) exchange routine information, (b)

negotiate or bargain, (c) get to know someone, (d) clarify confusing viewpoints, (e) stay in touch, (f) exchange urgent/timely information, (g) generate ideas/brainstorm, (h) resolve disagreements, (i) make important decisions, (j) exchange confidential/sensitive information, and (k) exchange important information. King and Xia (1997) maintain these 11 categories of communication tasks are representative of workplace communication and a good theoretical fit with studies of media appropriateness. To account for communication media misuse types that do not fit into any of the 11 categories of communication tasks listed above, the option of "Other" was also included in the coding scheme.

Content Analysis and Intercoder Reliability

See Appendix B for an example of the coding scheme used to content analyze the 192 stories of communication technology misuse submitted by respondents. To ensure the data were reliably coded, the primary researcher and research assistant double coded 42 percent (81, n= 192) of the stories of communication technology misuse. Intercoder reliability was calculated using Cohen's kappa, argued by Bakeman (2000) as the measure of choice for calculating intercoder reliability. Intercoder reliability for the media misuse types was established at .82.

Statistical Analyses

To answer research questions one, two and three, descriptive statistics were run and frequency calculations of the 15 different types of media misuse, communication technology misuse intolerance and attributions for communication technology misuse are reported.

Structural Equation Modeling. A path analysis was conducted to test the hypothesized linkages specified in the structural model proposed in this study. The pattern of relationships among the different sets of variables is depicted in Figure 2 and represents the corresponding hypotheses listed at the end of this section. Raw data was entered into SPSS and the input into the analysis in AMOS will be a covariance matrix of the measured variables from the survey item data. The values associated with each path will be standardized regression coefficients. An advantage of using structural equation modeling is that regression coefficients, means, and variances may be compared simultaneously (Stevens, 1996).

In addition to reporting the significance and direction of each path in the model, a chi-square test of absolute model fit is also reported in the next chapter, along with its degrees of freedom and probability value. Because of the nonsignificant outcome of absolute model fit test, appropriate post hoc analyses were conducted including descriptive fit statistics (i.e., tests of relative fit) to assess the overall fit of the model to the data. Additionally, conservative modifications of the model to obtain superior goodness of fit were conducted following guidelines established in the social sciences (Hoyle, 1995; Stevens, 1996).

In using path analysis I recognize that all of the assumptions underlying this kind of analysis were not fully met in this study (Griffin, 1977; Hoyle, 1995). However, as has been argued in studies of similar organizational phenomenon (Parasuraman & Alutto, 1984) the robustness of the *F* and *t* tests used in multiple regression analysis makes them resistant to minor violations of the assumptions. I have taken special care in the study to

minimize relaxing the assumptions of path analysis by first utilizing 15 cases per measured variable as is recommended by Bentler and Chou (1987).

The hypothesized relationships tested in the path analysis are:

RQ1: What types of misuses of communication technology are the most common?

RQ2: To what extent are employees intolerant of misuses of communication technology in the workplace?

RQ3: To what do employees most frequently attribute perceived technology misuse to?

H1: Media users' experience with the technology used in the misuse incident is significantly and negatively related to their attributing the misuse to the technology.

H2: Media users who attribute technology misuse to the technology used in the incident will be more likely to perceive that technology as less useful.

H3: Media users' satisfaction with their communication partner is significantly and negatively related to their attributing the technology misuse to that person.

H4: Media users who are not satisfied in their relationship with their communication partner will be more likely to use the communication strategies of exit and neglect in response to communication technology misuse.

H5: Media users who are satisfied in their relationship with their communication partner will be more likely to use the communication strategy of voice in response to communication technology misuse.

H6: Media users who are satisfied in their relationship with their communication partner will be more likely to use the communication strategy of loyalty in response to technology misuse.

H7: Media users' perceived strength of their organization's cultural norms for technology use is significantly and negatively related to their attributing the communication technology misuse to the emergent process.

H8: A significant and positive relationship exists between employees who attribute communication technology misuse to the emergent process and intent to leave the organization.

# CHAPTER FOUR: RESULTS

Chapter three presented the methods used to gather the qualitative and quantitative data analyzed in the study. This chapter presents that data along with the research questions and hypotheses it tests. The chapter is organized by the order of the research questions asked and hypotheses tested. First, descriptive statistics of the most frequent types of communication technology use are described from the survey data, followed by stories of communication technology misuse described by respondents. The third portion of the chapter presents the tests of the model fit, and post hoc analyses of paths in the model.

## Research Questions and Hypotheses

Major variables in the study were measured with a total of 74 questions regarding organizational members' perceptions of communication technology misuse (see Appendix B). Some indices were constructed specifically for this study while others were modified for use in this study. Scale reliabilities can be found in the research methods chapter along with a description of each index used in the study. The purpose of the study was: (a) to identify types of communication technology misuse in the workplace and (b) to understand how organizational members make sense of technology misuse and respond to these incidents.

### Characteristics of Communication Technology Misuse

Three research questions and eight hypotheses were posed in the study. Research question one asks: What types of communication technology misuse are the most common? Data for this question was collected from two sources and yielded slightly

different results. On the questionnaire respondents were first asked how frequently they experienced 15 different types of communication technology misuse. On the second part of the questionnaire, respondents were asked to describe up to two incidents of communication technology misuse at work. These stories were content analyzed and also yielded data that address the frequency of technology misuse at work. The list of 15 different types of technology misuse will be presented first and can be viewed in Table 4.1.

Using communication technology to avoid others was the most frequently experienced type of technology misuse indicated by respondents (*n* = 68, 60%). Almost half of the respondents indicated they very frequently receive message from senders who have used technology in a way that makes them appear less competent (*n* = 54, 47.8%), One-third of the respondents indicated they very frequently experience the following types of communication misuse: poor match for the urgency of the message (*n* = 40, 35.4%) sender broke rules for use (*n*=38, 33.6%,) broadcast message to others (*n* =38, 33.6%) poor match for timing of message (*n* = 36, 31.9%) poor match for personal message (*n* = 35, 31%) overused technology (*n* =34, 30.1%) broke work group rules (*n* =34, 30.1%) and poor match for message detail (*n* =34, 30.1%).

More than one third of the respondents indicated all 15 types of communication technology misuse were causes of major concern. The two of most concern to almost 60 percent of technology users are using technology to avoid others (*n* = 67) and broadcasting messages to others (*n* = 67). Almost half of technology users indicate that a poor match between the technology and the urgency of the message (49.7%) and when

the sender appears less competent in the way they use the technology are sources of major concern (48.7%).

Table 4.1: *Questionnaire data*

*Frequency, rank order and percentage of respondents experiencing frequent and concerning communication technology misuse by type*

| | Experience Misuse Frequently | | Perceive Misuse as Major Concern | | |
|---|---|---|---|---|---|
| Type of Misuse | *n* | % of Total | *n* | % of Total | Rank |
| Used technology to avoid others | 68 | 60% | 67 | 59.3 | 1 |
| Appeared less competent | 54 | 47.8% | 55 | 48.7 | 3 |
| Poor match for urgency | 40 | 35.4% | 56 | 49.6 | 2 |
| Broke rules for use | 38 | 33.6% | 44 | 38.9 | 9 |
| Broadcast to others | 38 | 33.6% | 67 | 59.3 | 1 |
| Poor match for timing of message | 36 | 31.9% | 52 | 46.0 | 4 |
| Poor match for personal message | 35 | 31.0% | 43 | 38.1 | 10 |
| Overused technology | 34 | 30.1% | 44 | 38.9 | 9 |
| Broke work group rules | 34 | 30.1% | 42 | 37.2 | 11 |
| Poor match for message detail | 34 | 30.1% | 45 | 39.8 | 8 |
| Background noise/distractions | 31 | 27.4% | 44 | 38.9 | 9 |
| Appeared unprofessional | 29 | 25.7% | 48 | 42.5 | 6 |
| Poor match for sensitive message | 24 | 21.2% | 48 | 42.5 | 6 |
| Sent offensive message | 14 | 12.4% | 50 | 44.2 | 5 |
| Used in way agreed not to | 12 | 10.6% | 26 | 40.6 | 7 |

*Note: Rank ordering was determined by frequency of technology misuse type.*

Stories of Communication Technology Misuse

To review, research question one in the study asked what types of communication technology misuse are the most common? Given the exploratory nature of the study and the lack of detailed descriptions or identifying characteristics of technology misuse, this question was answered using both quantitative and qualitative data. The quantitative data reported previously identified types of technology misuse that are the most frequent and the cause of most concern to organizational members. The list of 15 types of technology misuse was a deductively generated list culled from other research and popular press reports of inappropriate technology use. In order to generate more detailed descriptions of communication technology misuse and identify specific characteristics or features of this phenomenon, qualitative data was also gathered. Respondents were asked to describe up to two incidents where someone had misused technology in communicating with them at work. Respondents submitted a total of 192 stories of communication technology misuse. The distribution of communication technology misuse stories by type and their reported frequency are presented in Table 4.2. For detailed descriptions of each type of communication technology misuse and examples of misuse types described in the stories in Table 4.3. Additionally, other characteristics of technology misuse such as the communication tasks engaged in during the incident and the perceived job relevance of the message can found in Table 4.4 and the types of technology involved in the incidents can be found in Table 4.5.

Table 4.2

*Stories of Technology Misuse by Type and Reported Patterns of Misuse*

| | *n* | % of Total |
|---|---|---|
| *Type of Misuse* | | |
| Broadcast to others | 49 | 25.5 |
| Poor match for sensitive message | 20 | 10.4 |
| Poor match for personal message | 14 | 7.3 |
| Message urgency | 13 | 6.8 |
| Overused technology | 13 | 6.8 |
| Incompetence | 12 | 6.3 |
| Avoiding others | 11 | 5.7 |
| Broke work group rules | 7 | 3.6 |
| Broke widely understood usage rules | 6 | 3.1 |
| Other | 3 | 1.6 |
| Used in way agreed not to | 2 | 1.0 |
| Total | 192 | 100 |
| *Frequency of Misuse* | | |
| Single Event | 46 | 35.7 |
| Pattern | 82 | 63.6 |
| (Missing cases) | 1 | .8 |
| Total | 129 | 100 |

Broadcasting Messages to Others. When asked to describe one or more incidents of communication technology misuse in their workplace, respondents most frequently related stories about the misuse of email by their coworkers far more than other technologies like the phone, cell phone, fax, and instant messaging (70.5%). Of the 192 incidents of technology misuse described, the most frequent incidents were about coworkers intentionally and unintentionally broadcasting messages to others ($n$ = 49, 25.5%).

Unintentional Broadcasts. Unintentionally broadcasting messages to others appears to be an overwhelming misuse of communication technology in the workplace for many respondents. The stories described by respondents tell of being the unintentional recipient of intimate messages meant for others, receiving gossip or other negative information about coworkers, and being frustrated with work related messages that undermine client or superior-subordinate relationships, overcrowd in-boxes and interrupt their workflow. One respondent describes a tenuous situation at work caused by the unintentional broadcast of confidential information to the entire staff.

> *Minutes from an Executive meeting were sent to the entire staff. The minutes included information regarding the fact that some people would soon be laid off. Although no names were mentioned, the email caused great anxiety and unrest among co-workers.*

Another respondent highlights the false sense of privacy many people feel when using work email to communicate personal messages. Like many similar stories, this one illustrates how all too often a slip of the hand results in a wrong email address recipient.

> *[A] sexual love note sent from a co-worker to her boyfriend was accidentally routed to me because she entered the wrong recipient email address.*

Intentionally Broadcasting Messages to Others. The absence of widely understood and agreed upon norms for communication technology use often results in intentional technology use that some recipients deem a misuse, and sometimes abuse, of the technology. The blurring of our private and public lives in the workplace and negotiation

between the two in our communications with people at work make these decisions about technology use difficult to make at best. The following story illustrates how differently people may interpret communication technology misuse.

> *My former supervisor believed it was entirely permissible to forward or even publish in hard copy personal emails. He and his secretary both thought that any communication with them was meant to be broadcast. So I sent a gossipy email to the secretary, which in my mind was OBVIOUSLY just a personal message, she forwarded it to our boss and he started forwarding it around to others--all of this w/o telling me they were doing so much less asking for my approval. Even more surprising to me was that they couldn't understand why I objected to the practice.*

Findings from both the questionnaire data and the stories described here indicate communication technology is misused most often while communicating about routine work-related matters using email. Those types of misuse that result in the interruption of one's workflow or challenge workers' ability to accomplish job tasks are of most concern to respondents in the study. The following story describes a familiar scenario that echoes those of other respondents.

> *I was the on-site supervisor for a project and had one of my clinicians question a decision I had made in a rude tone and put it in an email in which he had CC'd all of the other people on our project. So, instead of being able to have a meeting with one person quickly to address the concern he had, I had to re-arrange schedules and delay the meeting until*

*everyone could be there. By that time a lot of talk had taken place between the clinicians and the situation had escalated further than it should have.*

Poor Match for the Sensitivity of the Message. The second most frequently described type of communication technology abuse involves selecting a technology (usually email, followed by the phone) that is a poor match for the sensitivity of the message (*n* =20, 10.4 %). Respondents' stories about this type of communication technology misuse centered on two types of communication tasks: the delivery of bad news (usually negative feedback) and the delivery of confidential information that could be compromised given the accessibility or insecure nature of the communication channel.

In the stories about bad news or negative feedback, the message is clear and consistent with prior media richness and media selection research: The more rich the channel, the better suited it is for communicating sensitive information or negative feedback. Some respondents are explicit about their desire for face-to-face communication when sensitive information is discussed, others allude to "communicating the old-fashioned way." Here is a story repeated by other respondents about receiving the ultimate in bad news at work, losing one's job.

*I taught in a high school the academic year of 2003/2004. I was supposed to return to the same position after the summer. Two days (yes, two days) before school began, I got an email from the assistant director saying that funding had been cut and my position had to be cut with it. Essentially, she fired me in an email. I found that to be completely inappropriate.*

Organizational members do not appear to appreciate receiving bad news or negative feedback via communication technology even when the target of the feedback is someone else.

> *My manager used voice mail to tell me that he had decided to fire someone who worked for me. He was traveling at the time, but this conversation should have been a live phone call or face to face meeting.*

As illustrated in the next incident, the more public the medium, the more inappropriate respondents' deem the match is between a sensitive message and communication technology used to deliver it.

> *[Principal] reprimanded teachers using the intercom system at school.*

Even industries with well-established norms for appropriately communicating confidential information aren't immune to communication technology misuse. Creating and maintaining organizational structures with a primary purpose of being able to deliver and receive secure information is a mainstay in the military. As is described in this next incident, military organizations with presumably clearly defined norms for communication technology use are also beset with organizational members who make inappropriate technology selections for sending confidential information.

> *I work with the handling of sensitive and many times classified information being a military member. I have on multiple occasions, received email messages that have disclosed specific details of ongoing military operations through unsecure email. This is an infrequent occurrence; however it is a MAJOR problem.*

Another industry whose success depends on maintaining confidentiality is the legal profession. A lawyer describes the following incident.

> *The incident included an interactive dialogue between me and a subordinate. The background was a potentially litigious situation. Information was brought to my attention that if true could jeopardize the organization's position. Unfortunately, I made a statement to the effect of our vulnerability if this information was true and asked the subordinate to confirm and if possible take corrective action. The subordinate's e-mail was saved including my initial message. I deleted my e-mail, she kept hers and then printed it out when asked for all documents for discovery by the legal counsel of the party concerned. Hence, the smoking gun was revealed.*

The remaining stories of communication technology misuse constitute less than 10% of each type of technology misuse and are spread relatively evenly across the remaining 13 types (see Table 6) with four exceptions. These four stories constitute two new types of communication technology misuse and were identified through content analysis. The two new categories of communication technology misuse are: (1) malicious or subversive uses of communication technology and (2) amplified negative tone.

Malicious or Subversive Uses of Communication Technology. The two stories included next offer special insight into how communication technology can be used maliciously or subversively in the workplace.

*A co-worker got into my e-mail and changed some of the e-mails and then gave copies to my boss to make her think I was undermining her. It was a lie and he was fired and my boss was transferred to a different unit.*

The malicious nature of the technology misuse in the previous story reveals there is still much to be learned about workplace deviance and its effects on work relationships. The next story describes what the respondent believes to be a subversive misuse of communication technology.

*I left a voice mail message for the director of a program to whom I was submitting a project proposal. The director saved my message and played it for my competitor who was then in receipt of some highly confidential information concerning my bid. The director told me that it had been done in error.*

Amplified Negative Tone. The second new type of communication technology misuse involves the amplified negative tone of a message sent using communication technologies.. Two stories fall into this category of technology misuse and are identified by their description of negative content amplification due to the tone or style of the message and the communication channel used. The first story describes the sender's language, word choice, and tone as amplifying the negative impressions he/she has of this person.

*I received many emails from one individual that were interpreted as very negative. It was the short sentences and the vocabulary he used that made all of his emails sound angry. There were never a Please or*

*Thanks in his emails. He was very direct and it was difficult determining if he was being sarcastic or just mean.*

Note the respondent only offers two choices for interpretation, either the sender was "being sarcastic or just mean." The possibility also exists that the sender is abiding by what he/she believes are the norms and goals of email use: adhering to simple, direct language in order to capitalize on the expediency of the medium.

The next story also illustrates how the style of the message, in this case unique to the channel of email, can amplify an already negative message.

*A faculty supervisor sent out an email to a group of TA's in ALL RED CAPITALS basically accusing all of us of being incompetent. I am very competent, and I do not do any of the things they accused everyone of doing. It was very lengthy, offensive, demoralizing, and not helpful for doing my job.*

The previous descriptions of stories describing communication technology misuse is simply a sampling of the most frequently listed type of misuse drawn from the examples of misuse listed in this study. For a more detailed listing of examples of the stories described by respondents, see Table 6.

Table 4.3

*Types of Communication Media Misuse (in order of frequency)*

| Type | Communication Behaviors and Examples of Media Misuse |
|---|---|
| **Broadcast to others** | **Intentionally or unintentionally broadcasting a message to inappropriate recipients**<br><br>**Intentional**<br><br>*My former supervisor believed it was entirely permissible to forward or even publish in hard copy personal emails. He and his secretary both thought that any communication with them was meant to be broadcast. So I sent a gossipy email to the secretary, which in my mind was OBVIOUSLY just a personal message, she forwarded it to our boss and he started forwarding it around to others--all of this w/o telling me they were doing so much less asking for my approval. Even more surprising to me was that they couldn't understand why I objected to the practice.*<br><br>*A fellow student copied me and several other students on a reply she sent to a professor she was upset with for failing her on an exam. It was totally inappropriate to share this discussion with us and made me feel very uncomfortable. It also made me think much less of this colleague.*<br><br>*I was the on-site supervisor for a project and had one of my clinician's question a decision I had made in a rude tone and put it in an email in which he had CC'd all of the other people on our project. So, instead of being able to have a meeting with one person quickly to address the concern he had, I had to re-arrange schedules and delay the meeting until everyone could be there. By that time a lot of talk had taken place between the clinicians and the situation had escalated further than it should have.*<br><br>*A dozen years ago, a co-worker fresh out of college was in a serious relationship and decided that she had waited long enough for her boyfriend to pop the question, so she was going to do it. She made her plans known to a few dozen people through lunchtime and hallway discussions. When she finally did it, the result was not what she had planned. Her boyfriend at first said "ok," but then felt pressured and backed down. The co-worker was upset, embarrassed and not using good judgment when she decided that, rather than tell people individually what had happened when she returned to the office on Monday, she would disburse the bad news quickly by using global voice mail. Her message was rambling, emotional, and the partners who received the message but had no idea what she was talking about were naturally concerned that one of their staff had flipped out. Six months later, she left the firm. I believe the VM incident severely damaged her credibility in the eyes of her supervisors. (But, happily, she did end up marrying the same guy about a year later.)* |

| | |
|---|---|
| **Broadcast to others continued…** | *I was dating a coworker at a college in California (I worked in a research department). When he broke up with me, he did it by email; and sent it to a group mailing list!!!! Though I think his intent was to humiliate me, his effort failed because the message contained multiple spelling and grammatical errors, and his language was that of a sixth grader. What surprised me was that many of the group members responded in my defense. This man quit the research team several weeks later. I have often wondered if the faux pas of sending the 'Dear Person I am Dating' letter to the group was instrumental in his decision.*<br><br>**Unintentional**<br><br>*Minutes from an Executive meeting were sent to the entire staff. The minutes included information regarding the fact that some people would soon be laid off. Although no names were mentioned, the email caused great anxiety and unrest among co-workers.*<br><br>*I surprised folks at work with breakfast tacos one morning. An email was sent to let people know they were available. One woman responded to the sender of the email and questioned my intentions. She hit Reply All and inadvertently sent it to me and the entire department, including the Chairman.*<br><br>*Some people in a different department mistook my email address for someone else's and forwarded pictures from a friend in the Army in Iraq showing Iraqis being shot (no mistaking this was taken at the moment of bullet impact) and bleeding bodies.*<br><br>*Sexual love note sent from a co-worker to her boyfriend was accidentally routed to me because she entered the wrong recipient email address.* |
| **Poor match for sensitive message** | **Using a communication technology that is a poor match for the sensitive nature of the message.**<br><br>*I work with the handling of sensitive and many times classified information being a military member. I have on multiple occasions, received email messages that have disclosed specific details of ongoing military operations through unsecure email. This is an infrequent occurrence; however it is a MAJOR problem.*<br><br>*I taught in a high school the academic year of 2003/2004. I was supposed to return to the same position after the summer. Two days (yes, two days) before school began, I got an email from the assistant director saying that funding had been cut and my position had to be cut with it. Essentially, she fired me in an email. I found that to be completely inappropriate.*<br><br>*My manager used voice mail to tell me that he had decided to fire someone who worked for me. He was traveling at the time, but this conversation should have been a live phone call or face to face meeting.* |

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|---|---|
| **Poor match for sensitive message continued…** | *The incident included an interactive dialogue between me and a subordinate. The background was a potentially litigious situation. Information was brought to my attention that if true could jeopardize the organization's position. Unfortunately, I made a statement to the effect of our vulnerability if this information was true and asked the subordinate to confirm and if possible take corrective action. The subordinate's e-mail was saved including my initial message. I deleted my e-mail, she kept hers and then printed it out when asked for all documents for discovery by the legal counsel of the party concerned. Hence, the smoking gun was revealed.*<br><br>*[Principal] reprimanded teachers using the intercom system at school.* |
| **Sent offensive message** | **Using communication technology to send an offensive message.**<br><br>*A coworker sent an instant message with a link to an offensive web site. He thought it was funny. I did not.*<br><br>*I work in a Sports Information Department. One of the school's coaches, who I would consider a friend, emailed me a joke that contained a disturbing and degrading photo of a large woman. The photo appeared on my computer screen in the office I share with my boss. I quickly closed the window, but I felt the need to explain what had just transpired to my boss in case she or someone else saw the image. I did not share who emailed me the photo. Nevertheless, I emailed him back and told him not to send me any emails to my work address that don't pertain to work.*<br><br>*I was working in the School of Education at a California college when coworkers were using emails to send around jokes that I thought were inappropriate for the workplace because they were disparaging to men (the office staff consisted primarily of women). When I sent out an email suggesting that the jokes might be grounds for charges of sexual discrimination, I received very nasty and explicit responses that were unnecessary.*<br><br>*A coworker of mine kept forwarding me inappropriate email jokes. Due to the high volume of email communications and the questionable nature, our corporate office issued a warning to me, and began monitoring my email communications more closely, and began blocking emails that coworker sent to me.* |
| **Poor match for personal message** | **Using a communication technology that is a poor match for the personal nature of the message.**<br><br>*A Co-worker sent me a personal e-mail with sensitive information in it which was intended for me only. They mistakenly sent it to our entire office, which was very embarrassing for me and the sender. It also caused tension in the workplace between several people and damaged friendships.* |

| | |
|---|---|
| **Poor match for personal message continued…** | *A staff member I work with sent an invitation for a coworkers baby shower out using the department-wide email distribution list rather than hand picking the invitation list.*<br><br>*Using email to invite co-workers to see a religious movie.* |
| **Message urgency** | **Using a communication technology that is a poor match for the urgency of the message.**<br><br>*I had an important order to enter for a customer and I needed information back from a coworker in order to enter it correctly. Despite leaving voicemail and email messages, I was not receiving the information I needed. The coworker finally answered my email query without changing the urgency of the message after the cutoff time for our warehouse. The order didn't ship on time because I didn't receive the answer fast enough.*<br><br>*A coworker left me phone messages, email messages, and filled out a web form, all marked urgent, for a matter that was not really urgent.*<br><br>*Someone emailed me, expected me to respond at a specific time, but then was upset when I didn't. However, it wasn't a choice for me as I did not receive the email since I was out of town.* |
| **Overused technology** | **Using a communication technology many times to send the same or a similar message.**<br><br>*My employee emailed me, faxed me and called me repeatedly to get an immediate response, interrupting my work flow. The misuse is "overuse" of communication technology. There is so much communicating and not enough time to get the work done.*<br><br>*Upper management using mass voice mail messages to 'rally the troops' ... it's a waste of time and has been used so frequently it has lost any effectiveness it might have had. Ineffective way to try and boost morale or modify behavior/reactions.*<br><br>*At the school where I teach, my principal sent the message about an upcoming meeting in several different ways--by e-mail (both by him and the district office), by phone, and by paper in my box. It was annoying to be reminded of one half-hour meeting in so many ways when I believe there should be an understanding that if I receive an e-mail and respond that the etiquette would warrant the "backing off" on the overuse of communication technology.*<br><br>*I requested information on an up coming conference from the company offering the conference. I received over 25 responses from the company about the conference over the next several days.* |

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|---|---|
| **Overused technology continued…** | *An obsessive-compulsive attorney with our department had the habit of leaving a voice mail message, a FAX and an e-mail when he wanted to communicate with me. He would send the same messages to each person in the office that he thought should have the information. I was irritated at dealing with the duplicates and at such waste. I also felt that since I was the director of the organization I should be the one to disperse the information appropriately. I solved the problem by sending the attorney a FAX, e-mail and voice message requesting that he choose a single mode of communication and to let me forward it if I think it is appropriate. I forwarded copies to all those in his office who I thought should hear my request!* |
| **Incompetence** | **Using communication technology in ways that highlight or emphasize the senders' lack of communication competence.**<br><br>*I react negatively to e-mail communications with major misspellings or grammar errors from co-workers with advanced degrees who make much more money than I do. This happens frequently in an educational setting. When people get upset about an organization issue and use the "all" e-mail function to broadcast their discontent, they should make sure the message is correct.*<br><br>*I had a co-worker whose grammar and use of punctuation in emails was very poor. The inability to write effectively made it difficult to correspond using this medium.* |
| **Avoiding others** | **Using communication technology to avoid face-to-face interactions with others.**<br><br>*A peer supervisor who avoids conflict chose to use on several occasions the internet to 'attack' my handling of a situation with which she disagreed. She chose to forward it to the director over both our positions. It is my opinion that her choice of communication was passive and aggressive.*<br><br>*I have one employee who never wants to talk about things so she sends a Fax full of complaints about what I have done…"*<br><br>*I have a co-worker who prefers to deal with me via e-mail, rather than directly. If she does not wish to deal with an issue, not only does she refuse to meet face-to-face, but she ignores my e-mail. In the long run I have found that e-mail has served as documentation that she is NOT working with me.*<br><br>*Superior used the phone to communicate inaccurate information about our firm being bought out by larger firm. I believe the superior didn't want to "fib" to my face. The fibs were an attempt to keep people at our firm from leaving.*<br><br>*Manager called me at home on his cell phone because I had told him about misuse of my supervisor's timesheet. He did not want to deal with the supervisor's misconduct and wanted no trace of it on work phones, etc.* |

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|---|---|
| **Avoiding others continued…** | *I went on projects for my last job, but was based out of one center. While I was out on a project the director of the center called me on site to let me know that my position wouldn't be there for me when I returned. The room that she called was not private so I couldn't discuss the issue with her or voice my concerns without the people I was supervising overhearing it... thus undermining the project I was on there. She used my inability to speak freely as a sign that I was okay with the situation and went forward accordingly.* |
| **Detail of message** | **Using a communication technology that is a poor match for the level of detail in the message.**<br><br>*Left an extremely long cell phone message requiring a response. A simple call to me regarding this urgent matter would have worked.*<br><br>*Voice mail in great detail, where email would have prevented me from having to write it down and make an error.*<br><br>*My former boss would leave long (10 minutes or more) voice mail messages for me all the time. She would ramble on and on and include details that were not pertinent to the matter at hand. She did not realize that the same information could be more effectively communicated through e-mail, and that she should probably limit her use of the phone to hours when she knew I would be at work.* |
| **Message timing** | **Using a communication technology that is a poor match for the timing (too slow or too fast) of the message.**<br><br>*People who work for me consistently email me at inappropriate times, like the night before a report is due to ask about the details of the report. It's VERY frustrating. They can't expect I will be there to answer there questions, but I usually am.*<br><br>*Recently a message was left on my cell phone by a subordinate. Due to a technical problem with the cell phone (which is not uncommon with my particular cell phone but I do not "qualify" yet for a replacement), I did not get the message for several days. The subordinate assumed that because the message was left that I had actually received the message and did no follow up. The resulting lapse was not critical (impact was minimal) but to me it points out a common problem with current communication technology: we assume that the communication loop is closed (e.g., successful and complete) when a message is left for someone (phone, email, etc.) when we have no direct evidence that the message was actually read/heard and so are making an unwise assumption about the communication's success/competition.*<br><br>*My superior answers my emails more than a week later, if at all. I feel ignored.* |

| | |
|---|---|
| **Message timing continued…** | *The head of human resources will usually notify the employees of my department of when we are going to be dismissed from work early for a number of reasons (holiday, building hazard, etc.). On one particular day when we were to be notified that we could leave at 4:30 instead of the usual 5pm, the human resources person sent out an email at 4:25pm. For those of us that are multi-tasking and cannot check our email, some people did not see the email message, or even receive it until 4:45 or 5pm. That was quite frustrating.* |
| **Broke work group rules** | **Breaking well-known technology use rules within one's work group**<br><br>*Sent an email out to complete list but included all addresses where others could copy and paste instead of the blind copy version. This organization had strictly asked that email addresses not be shared with other on the list. I warned the person once of the error but when it continued to occur I went to Supervisor.*<br><br>*We have an attorney in our office that has used email excessively. He would send emails numerous times a day relating information that was often not useful or important. He has been asked to minimize his emails and make them pertinent.*<br><br>*The floral manager that I work with in a grocery store always misuses the communication technology in our store. She drags out her message on the intercom like she is telling a story. She doesn't follow the proper procedure by making her message short and precise. She also doesn't repeat herself once like she should.* |
| **Appeared unprofessional** | **Appearing unprofessional in the way the communication technology is used.**<br><br>*During a cell call, the co-worker was driving in traffic and due to an approaching hurricane there was a lot of chaos. As he asked "When do you need this by?" he was cut off the road by another driver and add "F****ER" to his statement. I joked that he was referring to me, and although I understood, he was very apologetic and felt it necessary to follow up with an email asking forgiveness for his words.*<br><br>*I was in a staff meet with our group of 6 and personal cell phones were brought into the meeting. The staff who (2) brought in their phones did not bring paper or pencil, just the phone. They answered the phone in the middle of the meeting. One of the staff is a trained facilitator. The calls were from their teenage children and not emergencies. They never apologized or asked permission to take the call. It is a wide spread practice in this office when I arrived.*<br><br>*In personal meeting with an employee to discuss their work performance and personal development, the employee brought her cell phone because she always needs to be available for personal calls from her family, husbands business and teenage children. The phone rang; she answered, took the call and then looked at me in defiance to continue the call. She wants to be a manager.* |

| | |
|---|---|
| **Broke usage rules** | **Breaking widely understood rules for communication technology use.**<br><br>*A new program contact was emailing in font that was about size 40 and she had never heard of "shouting"*<br><br>*Instant messages were sent even though I was showing as busy and do not disturb, a co-worker still sent me popup instant messages.*<br><br>*I belong to a Listserv from employees with the same company all over the country. It is very annoying when someone responds to the entire group instead of the individual posting the query or statement. You receive personal answers you\'d rather not receive, a lot of discussion on a topic that may not be important to you, and worst of all...LOTS of messages from others annoyed that someone responded to the entire group instead of the poster (in essence, doing the same thing that annoyed them in the first place).* |
| **Background noise/distractions** | **Background noise or other distractions are obvious while communicating.**<br><br>*Using a cell phone on a conference call with a lot of background noise.*<br><br>*The public address system is totally abused at the school where I teach. It interrupts every classroom, applies to very few of the 800 or so people who must listen, and the volume cannot be turned down. Also, the microphone in the office picks up background noises and sometimes others\' conversations and annoyances such as laughter.*<br><br>*Individuals call with a variety of distractions and background noise. It's difficult to understand their concerns.* |
| **Other** | **Malicious or subversive uses of communication technology**<br><br>*A co-worker got into my e-mail and changed some of the e-mails and then gave copies to my boss to make her think I was undermining her. It was a lie and he was fired and my boss was transferred to a different unit.*<br><br>*I left a voice mail message for the director of a program to whom I was submitting a project proposal. The director saved my message and played it for my competitor who was then in receipt of some highly confidential information concerning my bid. The director told me that it had been done in error.*<br><br>**Amplified Negative Tone (Content and channel concerns)**<br><br>*I received many emails from one individual that were interpreted as very negative. It was the short sentences and the vocabulary he used that made all of his emails sound angry. There were never a Please or Thanks in his emails. He was very direct and it was difficult determining if he was being sarcastic or just mean.* |

| | |
|---|---|
| **Other continued…** | *A faculty supervisor sent out an email to a group of TA's in ALL RED CAPITALS basically accusing all of us of being incompetent. I am very competent, and I do not do any of the things they accused everyone of doing. It was very lengthy, offensive, demoralizing, and not helpful for doing my job.* |
| **Used in way agreed not to** | **Violating agreed upon norms for communication technology use established between communication partners.**<br><br>*I sent a supervisor a request that I asked him to send on to other teachers as coming from him if he was backing me in the request I made. Instead he sent it to the teachers as it was directly from me, and I received a copy of what he sent out. Had it come from a person in charge, the request might have been acted on. Coming from a co-worker, it was ignored.* |
| **Used in way agreed not to continued…** | *In the health care industry a paper trail is extremely important. Many Assisted Living facilities use faxes to obtain doctor's orders or changes in medication. Even though it is a prearranged agreement with every physician and physician's office that communication should be by fax, we often receive verbal orders that are not substantiated by a written order. We are usually unable to implement orders until the written order via fax arrives. This causes precarious situations between patient care and meeting State regulations.* |

Characteristics of Communication Technology Misuse

Communication Tasks Engaged in During Misuse. The stories of communication technology misuse were also coded for the type of communication task the communication partners were engaged in during the incident (see Table 4.4). Almost one-third of the stories (*n*=56, 29.2%) were about the misuse of communication technology during the exchange of routine information with one's communication partner. Slightly fewer stories (*n*=52, 27.1%) were about communication technology misuse that occurred when personal information was shared, followed by the exchange of confidential or sensitive information (*n*=36, 18.8%) and the exchange of important information (*n*=23, 12%).

Table 4.4

*Frequency Distribution of Communication Tasks Engaged in During Misuse Incidents and Perceived Job Relevance of Message*

| | n | % of Total |
|---|---|---|
| *Type of Communication Task* | | |
| Exchange routine information | 56 | 29.2% |
| Share personal information | 52 | 27.1% |
| Exchange confidential/sensitive info | 36 | 18.8% |
| Exchange important information | 23 | 12.0% |
| Exchange urgent/timely info | 11 | 5.7% |
| Resolve disagreements | 9 | 4.7% |
| Make important decisions | 4 | 2.1% |
| Get to know someone | 1 | .5% |
| Total | 192 | 100% |
| *Perceived Job Relevance of Message* | | |
| Message was relevant to my job | 69 | 53.5% |
| Message was personal | 55 | 42.6% |
| Missing cases | 5 | 3.9% |
| Total | 129 | 100% |

Types of Communication Technology Misused. Respondents were also asked to indicate the type of technology that misused in each story (see Table 4.5). By a wide majority, in story one almost two-thirds of respondents (*n* = 91, 70.5%) described the misuse of email. For story two, almost 40 percent also relayed a story about the misuse of email (*n*=51, 39.5%) followed by stories of cell phone misuse at work (*n*=13, 10.1%).

Table 4.5

*Type of Communication Technology Misused*

| Technology | n | Frequencies | Percentages |
|---|---|---|---|
| Story 1 | 127 | | |
| Email | | 91 | 70.5% |
| Voice mail | | 9 | 7.0% |
| Cell phone | | 7 | 5.4% |
| Fax | | 7 | 5.4% |
| Other | | 7 | 5.4% |
| Phone | | 5 | 3.9% |
| Instant Messaging | | 1 | .8% |
| Total | | 127 | 100% |
| Story 2 | 85 | | |
| Email | | 51 | 39.5% |
| Cell phone | | 13 | 10.1% |
| Phone | | 7 | 5.4% |
| Voice Mail | | 4 | 3.1% |
| Fax | | 4 | 3.1% |
| Instant Messaging | | 4 | 3.1% |
| Other | | 2 | 1.6% |
| Total | | 85 | 100% |
| Combined Totals | 176 | 176 | |

More than half of the respondents indicated the technology misuse they described in their story represented a pattern of behavior (*n*= 82, 63.6), rather than a single event (*n* = 46, 35.7%), and was considered a moderately to highly severe incident. Respondents also indicated the content of the message was slightly more often job-related (*n* =69, 53.4%) than about personal matters (*n* =55, 42.6).

Communication Technology Misuse Intolerance

Research question two asked: To what extent are employees intolerant of misuses of communication technology in the workplace? To answer this question, respondents were asked a series of questions about the extent to which they were intolerant of inappropriate uses of communication technology in the workplace. Sixty percent of respondents indicated they were highly intolerant of others who misused communication technology on the job. The remaining 38 percent of respondents who completed the intolerance scale indicated they were more forgiving of technology misuse.

Model of Communication Technology Misuse

One research question and seven hypotheses were constructed to examine the attributions organizational members make when communication media is misused by a communication partner at work and the relative influence of attributions and technology, relational and organizational factors in predicting technology perceptions and communication outcomes. Research question three asked: To what do employees most frequently attribute perceived violations of appropriate communication technology use? Internal reliabilities (Chronbach's alpha) for the three indexes created for this study to measure attributions for media misuse are: technological determinism (.75), rational

actor (.78) and emergent process (.54). The index measuring emergent organizational process attributions, where organizational norms for technology misuse were blamed for the incident, was not reliable even after deleting items to improve reliability (Chronbach's alpha .58). Respondents most often attributed the misuse of communication technology described in their stories to their communication partner (rational actor *n* = 41, 36%) and were least likely to blame a failure of the technology (*n* = 20, 17.5%).

Tests for hypotheses one through eight explored various paths in the model of communication technology misuse proposed in the study. The hypotheses are reprinted here in Table 4.6. The structural equation modeling software, AMOS, was used to test the relationships between two sets of predictors (Set 1: technology experience, relationship satisfaction and organizational norms for technology use and Set 2: technological determinism, rational actor, and emergent process) and six outcomes (perceived usefulness of technology, exit, voice, loyalty, and neglect, and intent to leave) simultaneously.

Table 4.7 presents the structural parameter estimates for the hypothesized model. Figure 4.1 presents the final model with the two equations predicting intent to leave removed. While care was taken to use no less than four-item measures for each variable in the model, some of the indexes used were created for this study and not all of the indexes used in the model analysis were reliable. As indicated previously, the five-item index used to measure the emergent process attribution was not reliable at .54. As a result, for the equation predicting intent to leave both of the two hypothesized paths (although significant and one was in the predicted direction) were removed. These were

the paths between strength of organizational norms for technology use and the emergent process attribution (-.02) and emergent process attribution and intent to leave (-.10).

There were significant paths between the technology-related variables in the model. Specifically, there were significant paths between technology experience and technological determinism (.24) and technological determinism and perceived usefulness of technology (-.25). There were also significant paths for the equations predicting the communication behaviors; all five of the hypothesized paths were significant. There were significant paths between relationship satisfaction and the rational actor attribution (-.39) and between the rational actor attribution and exit (.20), voice (.27), loyalty (-.25) and neglect (.37). Furthermore, two additional paths that were not hypothesized in the study were found significant. The first path between technology experience and the rational actor attribution was both positive and significant (.08). The second path between relationship satisfaction and the technological determinism attribution was also significant (-.01). These additional paths point to potentially fruitful directions for future research on media misuse.

Goodness of Fit Index and Post Hoc Analyses. The overall goodness of fit index for the model was not significant ($x^2$=87.395, df= 19) at the desired >.05 level. The goodness of fit index was run after the equations for intent to leave were removed because of the poor reliability of the emergent process index. Although removing the equations for intent to leave created an accurate goodness of fit index and brought the model closer to significance, significance was not achieved.

Table 4.6

*Hypotheses Tested in the Proposed Model of Communication Media Misuse*

H1: Media users' experience with the technology used in the misuse incident is significantly and negatively related to their attributing the misuse to the technology. (Supported)

H2: Media users who attribute technology misuse to the technology used in the incident will be more likely to perceive that technology as less useful. (Supported)

H3: Media users' satisfaction with their communication partner is significantly and negatively related to their attributing the technology misuse to that person. (Supported)

H4: Media users who are not satisfied in their relationship with their communication partner will be more likely to use the communication strategies of exit and neglect in response to communication technology misuse. (Supported)

H5: Media users who are satisfied in their relationship with their communication partner will be more likely to use the communication strategy of voice in response to communication technology misuse. (Supported)

H6: Media users who are satisfied in their relationship with their communication partner will be more likely to use the communication strategy of loyalty in response to communication technology misuse. (Supported)

H7: Media users' perceived strength of their organization's cultural norms for technology use is significantly and negatively related to their attributing the communication technology misuse to the emergent process. (Removed due to unreliable measure)

H8: A significant and positive relationship exists between employees who attribute communication technology misuse to the emergent process and intent to leave the organization. (Removed due to unreliable measure)

Table 4.7

*Standardized Path Estimates for Significant Paths in the Model*

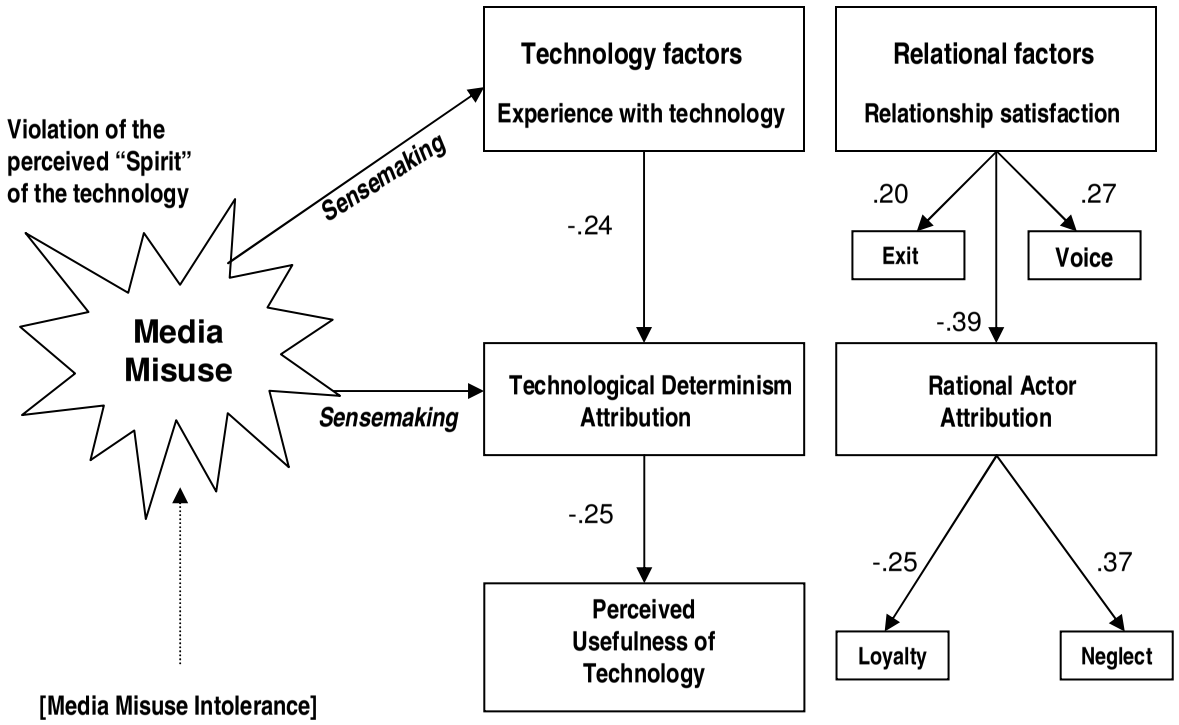
| Dependent Variables | Paths | Standardized Path Estimates |
|---|---|---|
| Technological determinism | Technology experience → Technological determinism | -.24 |
| Perceived usefulness of technology | Technological determinism → Perceived usefulness of technology | -.25 |
| Rational actor | Relationship satisfaction → Rational actor | -.39 |
| Exit | Rational actor → Exit | .20 |
| Voice | Rational actor → Voice | .27 |
| Loyalty | Rational actor →Loyalty | -.25 |
| Neglect | Rational actor → Neglect | .37 |

Additional post hoc analyses were run using the results of the modification indices which indicates the most important paths to leave out of an overall test of model fit to achieve significance. Figure 4.1 depicts the best model fit with the variables used in the study. Although not significant, the model indicates three equations that were not hypothesized in the study that identify direct paths between technology experience and the perceived usefulness of technology and relationship satisfaction and the outcomes of exit and voice.

In summary, the significant negative paths between technology experience and technological determinism and technological determinism and perceived usefulness of technology support Hypotheses 1 and 2. Likewise, the significant negative paths between

relationship satisfaction and the rational actor attribution and the rational actor attribution and loyalty support Hypothesis 3 and partially support Hypothesis 6. The significant positive paths between rational actor and exit, rational actor and voice, and rational actor and neglect support Hypotheses 4 and 5. Hypotheses 7 and 8 relating to the emergent process attribution could not be tested. Futhermore, the following significant and negative path was found between the rational actor attribution and loyalty to one's communication partner (-.25). The overall goodness of fit index for the model was not significant ($x^2$ = 87,396, df =19) at the desired >.05 level.

Figure 4.1: Revised Model of Communication Media Misuse: Influences of relational and technology factors and attributions for media misuse on communication strategies and technology perceptions when media use norms for appropriateness are violated.




[1]The Overall Goodness of Fit index for the model was not significant ($x^2 = 87.395$, df = 19) at the desired >.05 level.

[2]For clarity, only significant individual paths are shown.

# CHAPTER 5: DISCUSSION

Media researchers have made impressive inroads helping to identify negative effects of communication media through studies of media selection and appropriateness. These studies help explain the occurrence of negative effects of technology use and allude to their possible consequences, but none have set out to explicitly examine them or do so adequately. Whereas prior research on media choice and media appropriateness has primarily examined media use up to its execution, this study examined the process of media misuse, how organizational members make sense of media misuse, and how they respond to it. Absent also from media research has been an examination of the specific cognitive and communicative behaviors communication technology users employ when confronted with what they perceive as a negative effect, and how these cognitions and behaviors ultimately affect work relationships and technology perceptions.

This study sought to determine what communication technology misuse looks like and how people process and respond to a "bad fit" between technology and task, or the nonnormative use of communication technology. The study was designed to explore three main questions: What do organizational members consider communication technology misuse in the workplace? What perceptual and behavioral outcomes are associated with communication technology misuse? And, what influence do attributions for misuse and factors related to technology use, relationship satisfaction, and organizational norms have on communication and technology outcomes when media misuse occurs? A discussion of the study findings will proceed with key findings that address these three questions,

followed by strengths and limitations of the study, implications and future directions for research, and a final summary of the study.

## Key Findings

### The Routineness and Severity of Misuse

Perhaps the most surprising finding of the study, and the one that highlights the darker aspects of technology use, is the frequency and severity with which communication technology misuse is experienced. The results of the study indicate that organizational members experience communication technology misuse in the workplace with a relatively high degree of frequency and that it has adverse effects on work relationships and, to a lesser extent, the perceived usefulness of the involved technology. The simple volume of communication technology use in today's workplaces may explain the regularity with which respondents are on the receiving end of technology misuse. The findings indicate communication technology is misused most often while communicating about routine work-related matters with coworkers using email. This finding is consistent with recent research on email use in the workplace indicating electronic communications mostly contain content that is highly valuable to the receiver's work (Fallows, 2000). Contrary to popular belief, only a small portion of work emails contain personal content, a claim that was also supported in this study. It appears then, at least in the case of email, that misuse is most likely to occur when engaging in routine activities such as scheduling, logistics, information gathering, decision-making, and document review (Fallows, 2000).

Communicating sensitive information does not appear to be the context of most media misuse. In fact, when asked to review a list of various types of communication

technology misuse, a majority of the respondents indicated using technology to avoid others was the most frequently experienced type of misuse and, along with broadcasting messages to others in the workplace, was rated first among 16 types of misuse as a cause for major concern for organizational members.

When asked to describe up to two incidents of communication technology misuse, respondents most often wrote stories about their communication partners intentionally and unintentionally broadcasting messages to others. The next most frequent misuse incidents described in the stories were about the poor matches between the technology used (usually email, then phone) and sensitivity of the message (e.g., negative feedback, confidential information). Contrary to the intensity of emotion respondents' stories reveal about their distaste for poor matches between the technology used and the sensitivity of the message, technology misuse that hinders the accomplishment of one's job tasks (e.g., poor match for the urgency or timing of the message), appearing less competent as a result of misuse, and sending an offensive message were cited more frequently as causes of major concern in the study. Additionally, more than half of the respondents indicated the technology misuse they described in their story represented a pattern of behavior, rather than a single event, and was considered a moderately to highly severe incident.

Intolerance for Media Misuse and Its Consequences. This study sought to capture both the scope and the complexity of communication technology misuse in the workplace. In order to understand how media users make sense of and respond to technology misuse, the level of unacceptability -or breaking point- had to be established. In the case of this study, a reliable index of media misuse intolerance was created.

Contrary to what other media researchers claim are "dispassionate attitudes" about email and Internet use at work (Fallows, 2000), the majority of respondents in the study indicated a moderate to high intolerance for media misuse that belies this dispassionate stance. Furthermore, respondents most often responded to media misuse with the two most active (rather than passive) behaviors when they experienced it: exit and voice.

The selection of exit as a communicative response to media misuse is consistent with recent work on workplace incivility which suggests that feelings of anger increase the probability one will engage in uncivil behavior (Andersson & Pearson, 1999). Exit, as it was operationalized in the study, is a destructive response because it signifies taking an active role in ending the communication relationship. Yet, these findings come as somewhat of a surprise given the ongoing and lasting nature of most workplace relationships that typically necessitate continuing them. Sias and Perry's (2004) recent study on disengaging from workplace relationships helps explain the difficulty of terminating these affiliations.

> Workplace relationships are distinct from most nonwork interpersonal relationships in that partners typically must continue to work together after their relationships have deteriorated. Disengagement may be particularly difficult to negotiate in relationships in which continued, frequent contact is mandatory (e.g., complete avoidance would be difficult, if not impossible) (p. 592).

It may be difficult, but not impossible, to negotiate exiting from a fully or predominantly mediated communication work relationship. As Sias and Perry (2002) also indicate, the events leading up to relational disengagement are likely to create negative emotions like anger, disappointment, and stress at varying levels of intensity and with varied responses. Given the moderate to high intolerance for media misuse and

propensity to exit in response to such incidents, it appears that misusing communication technology is enough cause for an extreme response such as exit.

Another counterintuitive finding reported in this study is the propensity to use voice, as well as exit, in responding to media misuse. Given the desire to minimize conflict and preserve face encounters in work relationships, it might be assumed indirect strategies such as loyalty or neglect would be the most frequent responses to media misuse. The propensity to use indirect responses to disengage from irritating or negative work relationships is strong (Sias, Fix, Heath, Perry, & Silva, 2004). Utilizing a small sample of in-depth interviews to identify the communication strategies used to disengage from work relationships, Sias et al (2004) found that respondents relied primarily on indirect forms of communication to disengage from work relationships such as avoidance of nonwork topics, avoidance of extra organizational socializing, and nonverbal distancing. They report, "Only rarely did individuals disengage from relationships via explicit and direct discussion" (Sias et al, 2004, p. 592). Respondents' propensity to use voice in the present study in response to communication technology misuse is revealing with regard to the context of media misuse and the apparently strong emotions it elicits. Given the high level of concern respondents in the study have for types of misuse that prevent them from doing their jobs or that interrupt their workflow, it is understandable they would respond in a direct manner in light of threats to the pursuit of job goals.

The Blame Game. Although the analysis did not support the overall claims of the model, the significance of separate paths in the model indicate attributions for media misuse do play an important role in predicting outcomes of media misuse. With regard to

the propensity to use exit and voice, a closer examination of the perceived volition of the person committing media misuse and subsequent blame attributed to that person should help to further explain these direct destructive (exit) and constructive (voice) responses to media misuse.

A model developed by Shaver (1985) of attributing responsibility may help explain how and where blame is placed after a negative incident like media misuse occurs. According to Shaver (1985) the more one perceives an actor to have committed an act of one's own volition, the more likely the observer will be to react negatively and punitively. A coworker, superior or subordinate who chooses to behave in a manner that conflicts with a media user's expectations is likely to be perceived as responsible for that incident. Furthermore, expectation violating incidents that appear to have been committed as a result of organizational policies but were carried out by a well-meaning employee or where the source of the incident remains unclear (e.g., either or both one's communication partner and the organization could be to blame) may distribute responsibility for the incident and mitigate or eliminate negative consequences as a result.

Sias and Perry's (2004) recent study of the strategies used to disengage from work relationships provides further insights into the important role of attributions in determining the directness of responses to coworkers, superiors and subordinates. They indicate that when responsibility for the event is in question and may not rest solely on the coworker, or when individuals feel sympathy for coworkers, employees may be less likely to respond punitively. In the present study this may explain the incidents where

more passive, less face-threatening responses such as loyalty and neglect are used. According to Sias and Perry (2004):

> Less explicitly face-threatening, depersonalization nevertheless was similarly associated with the reason for the deterioration. In particular, depersonalization was more likely to be used in betrayal, conflicting expectations, and problem personality situations then in promotion situations. Again, a primary difference between these situations may be the extent to which one perceives the target to be responsible for the situation (p. 598).

Their findings, along with the current study, suggest that attribution of blame for media misuse may still play an important role in mitigating how direct and constructive responses to technology are. A closer examination of the causes or sources of media misuse that account for additional targets of blame, perhaps overlooked in this study, is necessary and warranted to understand the process of media misuse.

Face Saving and Face Threatening Types of Misuse. Two research questions were constructed to ascertain the characteristics of communication technology misuse. The first asked what types of technology misuse are the most common and the second sought to identify various characteristics of the different technology misuse types. As mentioned earlier in this section respondents indicated using technology to avoid others was the most frequently experienced type of misuse and, along with broadcasting messages to others in the workplace, was rated first among 15 types of misuse as a cause for major concern for organizational members. That a face saving technique (avoiding others) and a potentially face threatening technique (intentionally or unintentionally broadcasting messages to others) are perceived as the causes of most concern to media users is at first glance puzzling. One might assume the more provocative types of misuse respondents

reported such as receiving offensive messages and the insensitivity shown when inappropriate technologies are used to communicate highly sensitive information would cause the most concern for organizational members.

What these findings further illustrate is that media behaviors that prevent or construct obstacles to performing one's job are the most disconcerting types of media misuse. Media users appear to be more forgiving of the kinds of misuse that affect them on a personal level and less forgiving of misuse that impedes their progress and threatens their ability to perform at work. Being forgiving of relational threats caused by misusing communication technology is consistent with a media savvy workforce that is fully aware of the benefits and drawbacks of media use and the mishaps that often occur as new media are adopted with varying degrees of success and norms begin to be established.

Fallows' (2000) study of email use at work highlights the fact that employees enthusiastically welcome the casual element email brings to another otherwise structured and staid workplace and shrug off the mistakes and mishaps that accompany some email use. "Absent the rules and protocols of letter writing and even telephoning, email use is wild and wooly. People use it for all kinds of professional and personal communications on the job and mostly like the devil-may-care effect on workplace culture" (Fallows, 2000, p. 3). The 6,000 respondents in Fallows' (2000) study, offer some interesting and alternate views into how media misuse may be interpreted.

> The lighter side of email on the job:
>
> - 43% of work emailers say email has offered them some relief at times during their workday.
> - 39% of work emailers say they have sent jokes or chain emails at some point.
> - 26% have used email to discuss personal life.

- 15% admit to gossiping about work on email.

The darker side:

- 22% of work emailers say email has caused misunderstandings.
- 28% find email distracting at times.
- 23% say email adds a new source of stress to their work lives
- 16% say email encourages gossip. (Fallows, 2000, pp. 3-4)

In the case of the present study, insights into the motivations and reasons for misusing media, like those listed above, are limited due to adopting a receiver's perspective of media misuse. Examining how and why media user's engage intentionally in media misuse, now that it has been defined in the present study, would be a fruitful next step for researchers interested in media's negative effects.

## Limitations

Contributions of the present study should be viewed in light of certain limitations that also provide fruitful directions for future research.

Sample. The first limitation in the study pertains to the generalizability of the sample. Despite the fact the sample in this study represents a wide cross-section of industries and, presumably, increased opportunities to identify a wide variation of experiences of media misuse, respondents in the study were overwhelmingly white employees in white-collar jobs. For that reason, this study does not further attempts to identify intercultural differences that may affect mediated communication in the workplace. Future studies should remedy this oversight to ensure that a diverse set of experiences, communication styles and norms for media use are explored.

Of the 112 respondents in the study who indicated sex, 73 were male and 39 were female. Because there were not equal cell sizes for men and women, all of the survey

responses were analyzed together. This limitation prohibits the comparison of male media user's responses to female media users' which would have provided useful information about the extent to which their perceptions of misuse and responses to them vary. Fallows (2000) study of email use at work indicates the profile of most power emailers (define) are highly educated males in white-collar jobs. Like the current study, Fallows' (2000) findings are skewed such that the views of this subpopulation of workers takes the fore ignoring the possibility of potential differences in perceptions of misuse and responses to these incidents between male and female workers.

A third concern related to the sample in the study is the high percentage of executive level and above personnel in the study. Twenty percent of respondents were upper-level managers, directors and presidents of their organizations. The presence of so many high level employees may have resulted in a managerial bias that skewed the results in a number of ways. Managers and directors may perceive different types of misuse as being a source of concern than lower-level employees given the differences in their job responsibilities and motivations for maintaining work relationships. Similarly, higher-level employees are likely to respond differently to misuse given their negotiation of the superior-subordinate relationship and responsibility to provide safe, non-threatening work environments for employees. These differences should be explored in future research on the topic of communication technology misuse.

Indices created for study. As indicated previously, the five-item index used to measure the emergent process attribution was not reliable. As a result, for the equation predicting intent to leave, both of the two hypothesized paths were removed from the

model. These were the paths between strength or organizational norms for technology use and the emergent process attribution and emergent process attribution and intent to leave. As mentioned earlier in this chapter, the distribution of blame from one's communication partner to the organization may well offer important insights into the nature of recipient's responses to media misuse and the extent to which they mediate punitive strategies that may cause irreparable harm to work relationships. In relation to the model proposed here, the emergent process indices would have also offered insights into those circumstances under which recipients of media misuse are provoked to point they consider leaving the organization. Future research should remedy this error by creating a reliable index measuring an organizational attribution of blame for technology misuse that less closely resembles the emergent process explanation outlined by Markus (1992) and more closely identifies the organization as the sole source for the misuse incident.

## Implications and Future Directions

### Theoretical Implications

Implications for Media Choice and Appropriateness Theories. Identifying and describing what constitutes communication technology misuse and understanding how organizational members respond to such incidents has important implications for theory building, scholarship and practice. First, understanding the process by which people make sense of inappropriate uses of communication media and how they perceptually and behaviorally respond to media misuse extends existing research on theories that address the unintended effects of technology and the social influence processes that shape technology perceptions and norms established for its use. Specifically, this study builds

on the work of Fulk and colleagues (Fulk, 1993; Fulk & Boyd, 1991; Fulk, Schmitz, & Ryu, 1995; Fulk, Steinfeld, Schmitz, & Power, 1987) on the social influence model of media use.

This research has shown that popular views of technology as a panacea that can be used by workers to achieve whatever communication goals they desire, given a certain level of mastery, are overly simplistic at best. Unlike most research on media appropriateness which focuses on a communicator's selection of the "best" media for the message or social setting, the results of this study reveal the receiver's perspective and as such privileges the experience of the person who perceives an inappropriate use of media has occurred. Whether the negative effect was intended or not matters less in this study than the effects media misuse has on persons receiving such messages and how they react to them. From this view individual sensemaking, rather than the overt negotiation of media appropriateness between sender and receiver, takes center stage.

As an application of Weick's (1995) sensemaking perspective, the study is revealing in that the attributions media user's make to explain media misuse appear to mediate the relationship between technology and relational factors and technology perceptions and communicative responses to media misuse. Generally, in response to a technology misuse incident at work, organizational members look to their history with the technology and their satisfaction with their communication partner to direct how they will respond to the incident.

The present study further explores the influences of social structures on technology perceptions and communication outcomes by examining contextual factors

that may mitigate them. The lack of attention given to contextual factors in studies of communication media prompted Zack and McKenney (1999) to state the following:

> [CMC] research is framed by the belief that given an appropriate design, once the technology is implemented communication processes and patterns will ultimately change in desired and intended ways. This assumption is so embedded that the potential influence of organizational culture or social context on patterns of CMC is rarely examined. Whether or not CMC will improve or even influence organizational performance, however, may depend on the particular social circumstances under which these electronic media are employed. (p. 248)

To explain the process of media use violation while accounting for the influence of social structures like those drawn upon in adaptive structuration theory requires a close examination of contextual factors including social structures embedded in work relationships and in technology perceptions and behaviors. The present study advances theory building on the social consequences of communication media use and, by including the attributions people make to explain negative effects of media, strengthens the explanatory power of predictions of media users' perceptual and behavioral responses to communication technology misuse.

Workplace Deviance Research. The present study contributes to research on workplace deviance by serving to broaden the domain of deviance behaviors that have emerged from the advent and widespread adoption of new communication technologies. Workplace deviance is defined as "intentional acts initiated by organizational members that violate norms of the organization, and have the potential to harm the organization or its members" (Bennett & Robinson, 2003, p. 247). Media misuse is a form of workplace deviance. The more subtle acts of incivility described by respondents in the study as different forms of media misuse represent a move toward more subtle social forms of

deviance described by Bennett and Robinson (2003). Other researchers note the rise of incivility and identify the need to better understand the harmful effects of these small but powerful interactions in the workplace. “Incivility is low intensity, deviant behavior that displays lack of regard for others, and that occurs in violation of norms for respect in social interactions” (Pearson, Andersson, & Porath, 1999, p. 7).

Workplace deviance researchers have also noted that, to date, this area of study has primarily focused on the behavior of employees, with a bias toward blue-collar and lower level workers. They speculate whether patterns of behavior that have been found for lower level employees will remain the same for those at the management-level as well. The predominance of respondents in white-collar jobs and those in supervisory or management positions in the present study lend insight into perceptions of deviance behaviors and responses to them at the highest levels of the organization. Future research that specifically examines high-level employees’ perceptions of media misuse, responses to misuse and motivations for engaging in misuse themselves are warranted to extend the study of media use and its negative effects and domain of behaviors for workplace deviance studies.

Methodological Contributions. Finally, the methodology used to explore the process of media misuse yielded three new reliable measures that make a clear contribution to studies of the negative effects of communication technology use. These measures include an Intolerance for Media Misuse Index, Technological Determinism Attribution Index and Rational Actor Attribution Index. The latter two indexes previously existed as explanations for negative effects of media use offered by Markus (1990).

Additionally, reliable measures of exit, voice, loyalty, and neglect, that were adapted from a study of interpersonal relationships for use in this study, were also created. The application of Hirschman's (1970) model of exit, voice, loyalty, and neglect for media studies, specifically for studies of media's negative effects on communication behaviors and work relationships, answers calls by media scholars to creatively utilize lasting theories and measures from other disciplines (in this case economics) in developing useful measures of the effects of new technologies.

Additionally, the sample in the study consisted of organizational members rather than students. While students may certainly have enough media experience to participate in a study of how media is miused, the temporal nature and short tenure of much student work experience would have limited the implications of the findings considerably. The organizational sample used in the study will allow for more accurate conclusions and implications that can be translated into practice in organizations.

## Practical Implications

### Implications for Practitioners

For practitioners, immediate implications for superior-subordinate and coworker communication can be drawn from the study. DeSanctis and Fulk (1999) have suggested research on communication technologies address, "the degree to which unanticipated, negative, or destructive impacts can result from managerial choices regarding technological implementation" (p. 498). In the absence of "best practices" that outline both the benefits and consequences of media use in the workplace, many managers are putting at risk the very relationships new media

purport to strengthen, those of coworkers and superiors and subordinates (Hacker, Goss, Townsley, & Horton, 1998).

As mentioned earlier in the study Poole and De Sanctis (1990) voice support for educational efforts to address problems with media use, “When people struggle with a new technology, the solution may not always be to change the system but to explore ways in which to promote effective use of the technology, through training, advice giving, leadership, or the addition of structures that limit the possibility for misuse” (p. 190). Given examples of the most concerning, severe, and frequent types of communication technology misuse, managers can advise others against using technology to avoid others and broadcasting messages inappropriately to unnecessary or unwarranted recipients. When socializing new employees into an organization, managers should encourage employees to discuss negative feedback, confidential, personal, or otherwise sensitive matters face-to-face instead of via email or phone. If employees are aware that to use what may be the most expedient communication channel (email or phone) will likely exacerbate already negatively-charged messages and misconstrue others, they may be more likely to choose to communicate face-to-face. When communicating face-to-face is not an option, supplementing less rich media with more rich media or increasing the amount and quality of communication to ensure missing nonverbal and other cues are not hampering the delivery of the message may be effective strategies. Given increasing geographically distant work, future studies should investigate the myriad of strategies people use to ameliorate problems associated with less rich media in order avoid

misusing communication technology. The extent to which employees take pains, or do not, to ameliorate these potential problems would be telling in and of itself.

Superior-subordinate relationships are widely acknowledged as integral to organizational functioning (Putnam & Cheney, 1985). Arming managers with the correct combinations of organizational, technology and relational factors that mediate perceptions of technology misuse and their subsequent outcomes and correctly assessing employees' intolerance for communication technology misuse may eradicate some types of misuse or, at the very least, help to lessen their impact. In light of the routineness and severity with which respondents in the study experience these incidents, these types of proactive behaviors would be time well-spent.

Insights can also be drawn from those types of misuse that garner less concern from respondents than those mentioned earlier but are nonetheless still causes of concern for most media users and important to attend to. For example, in those work relationships that are predominantly maintained through mediated or electronic communication such as in some forms of telework and when employees are geographically distant, sensitivity to an employee's accessibility should be considered. In addition to message timing and technology choices in light of the relative urgency of messages, a manager who is conscientious about an employee's intolerance for such types of media misuse may be the key to retaining these types of employees and keeping them satisfied in their jobs. Again, this should be particularly important among geographically dispersed workers where certain organizational factors that may mediate perceptions of media misuse are missing such as cues about the social context (i.e., relational history and satisfaction with one's

communication partner, knowledge of a person's organizational role power) that are more readily determined in face-to-face interactions. Clearly, superiors and subordinates who can make predictions about what types of communication media use may be perceived as misuse and that technology and relational factors mediate these perceptions and their negative impacts should be at an advantage in using new media effectively to perform their jobs and in mastering 21st century communication technologies.

## Summary and Close

This chapter provided a discussion of the results of the study of communication technology misuse in the workplace. First, a discussion of key findings in the study was offered followed by the strengths and limitations of the study. Finally, implications of the study and future directions for research on communication technology misuse were outlined.

This study found communication technology misuse is viewed as a routine negative side effect of media use in the workplace with somewhat dire implications for work relationships. The relative incidence and severity of communication technology misuse is far greater than had been perceived previously with most types of misuse garnering a moderate to high degree of concern from media users. The concern over media misuse is further illustrated by the predominance of direct (voice) and punitive (exit) responses of media users' when blame is attributed to their communication partner, rather than the technology used in the incident.

In the introduction of his treatise, "Technopoly: The surrender of culture to technology," communications theorist Neil Postman (1992) describes the negotiation of

benefit and harm that underlies the use of technology and warns of its effects on human relationships. In closing, I offer his thoughts on the subject in the hope it will inspire future investigations of intended and unintended negative effects of media use and the constant negotiation of benefit versus cost we should be engaging in to make sense of our now closest friend's impact on our daily lives.

> In fact, most people believe that technology is a staunch friend. There are two reasons for this. First, technology is a friend. It makes life easier, cleaner, and longer. Can anyone ask more of a friend? Second, because of its lengthy, intimate, and inevitable relationship with culture, technology does not invite a close examination of its own consequences. It is the kind of friend that asks for trust and obedience, which most people are inclined to give because its gifts are truly bountiful. But, of course, there is a dark side to this friend. Its gifts are not without a heavy cost. Stated in the most dramatic terms, the accusation can be made that the uncontrolled growth of technology destroys the vital sources of our humanity. It creates a culture without a moral foundation. It undermines certain mental processes and social relations that make human life worth living. Technology, in sum, is both friend and enemy. (1992, p. xii).

## Notes

[1]Lievrouw and Livingstone (2002) observe that terminology is a problematic aspect of researching new media and that there is uncertainty over how to label people in terms of their relationship to these new technologies.

> In a number of important ways, audiences are becoming 'users'. Analytically, audiences are being relocated away from the screen, their activities contextualized into the everyday lifeworld. They are also becoming users because they are grappling with the meaning of new and unfamiliar media objects (i.e. as technologies, or consumer goods), and this not only in their homes but also in schools and workplaces. Further, they are becoming users because new media and information technologies open up new, more active modes of engagement with media – playing computer games, surfing the web, searching databases, responding to e-mail, visiting a chat room, shopping online and so on. (p. 10)

Further, these researchers implore other media scholars to focus on the nature of the relationship between communication media and the individual and the situated context in which media is used. Locating this relationship in a social context brings to the fore the fact that people are thoroughly embedded in their social roles as workers, parents, teachers, and friends - which precede their status as 'users'.

# APPENDIX A

Thank you for agreeing to take the online survey I'm using for my dissertation research on communication technology misuse. The survey only takes 10 minutes to complete which is good news for those hard pressed for time.

Anyone who uses communication technology to accomplish their work (phone, cell phones, email, faxes, instant messaging, etc..) can complete the survey, so feel free to forward it on to family, friends, or coworkers who may be interested in taking it (or entering the drawing for the $100 gift certificate).

Best,

Stephanie Hamel

343-4648 (home)

**Enter the drawing at the end of the survey for a $100 gift certificate at**

**Lowe's, Home Depot, OfficeMax, or Barnes&Noble**

**(with only 100 people responding, the odds are pretty good!)**

Survey: Employee Reactions to Communication Technology Misuse at Work

**Do you use email, a cell phone, or other forms of technology to communicate at work?**

**Have you recently had someone you work with misuse or inappropriately use technology when they communicated with you?**

If you answered yes to both questions, then you are invited to participate in a study designed to learn more about miscommunication and technology in the workplace. My name is Stephanie Hamel and I am a Ph.D. candidate in the College of Communication at The University of Texas at Austin. I am conducting this research to collect data for my dissertation. As someone who uses and experiences abuses of communication technology in the workplace, I have a keen interest in helping people better understand the consequences of technology use on work relationships, attitudes about one's place of work, and technology attitudes.

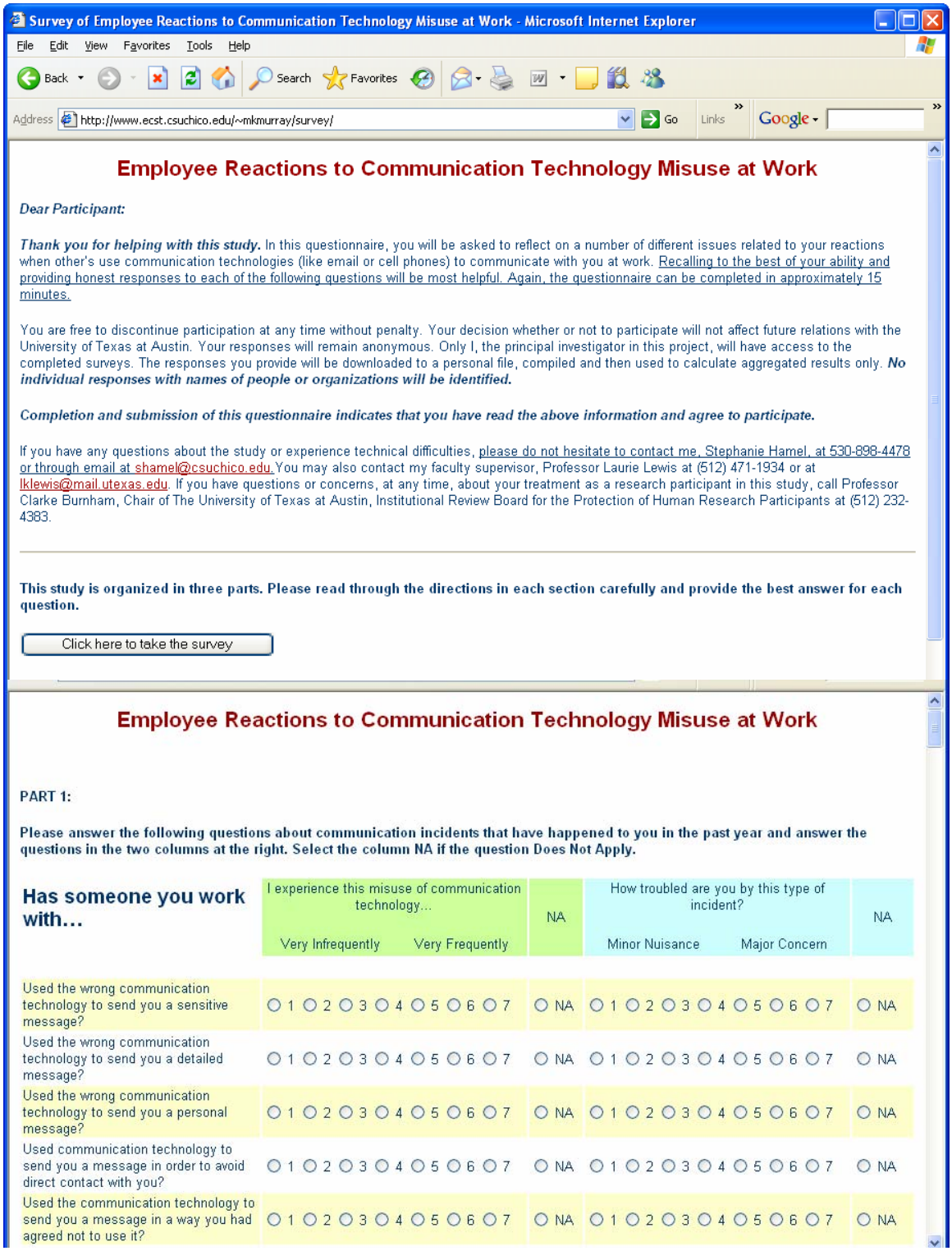
**The following questionnaire can be completed in approximately 10 minutes.** Please provide enough time to complete the questionnaire in one session. Your identity, as well as the identities of other respondents, will remain anonymous.

**Thank you in advance for contributing your time to this project. It is sincerely appreciated!** If you have questions, feel free to call me at 530-898-4478 or email me at shamel@csuchico.edu.

**Please submit your completed questionnaire by next Friday, Sept. 24th, 2004.**
**To complete the questionnaire, type in the link below.**

http://www.ecst.csuchico.edu/~mkmurray/survey/

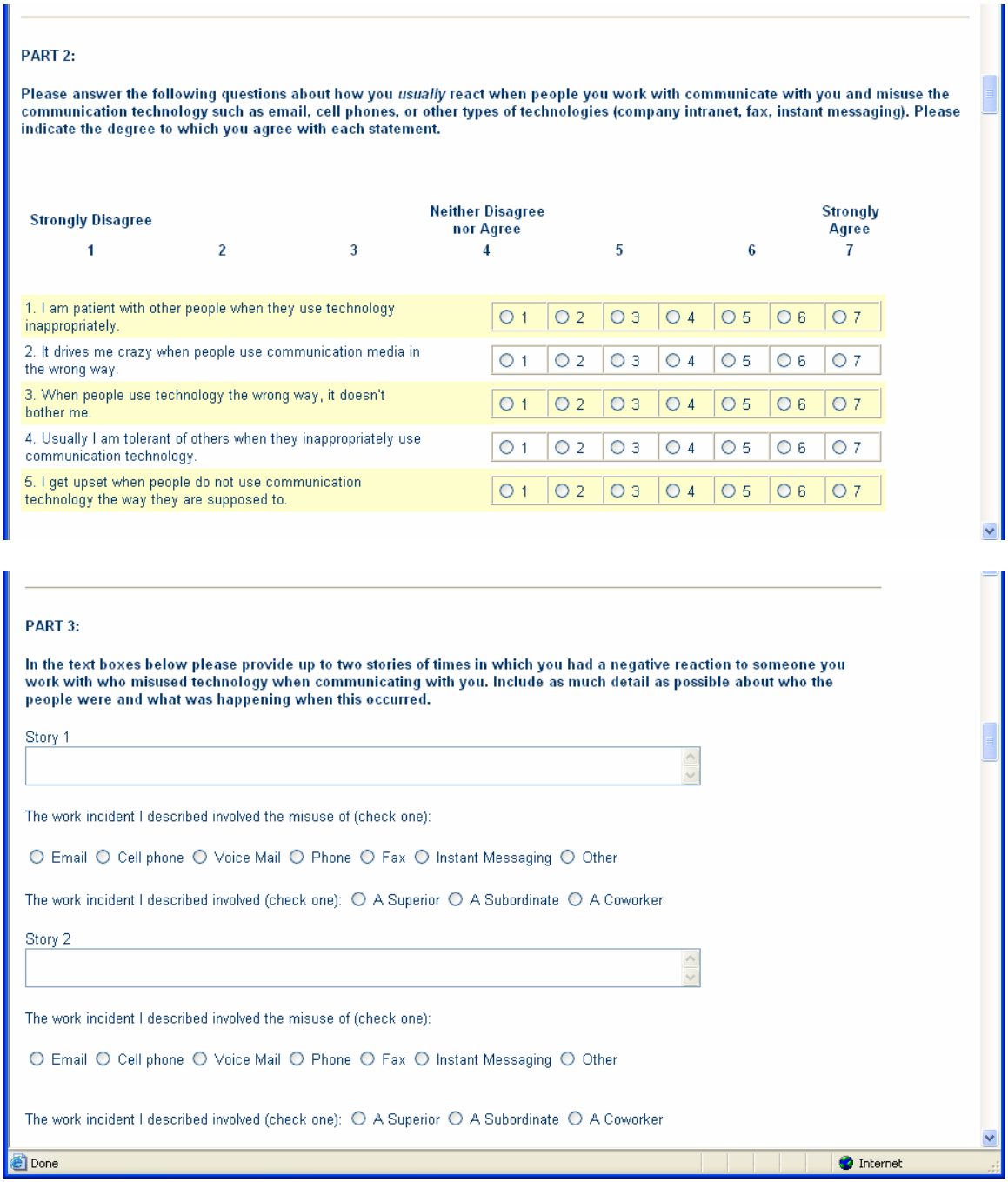
APPENDIX B


Survey of Employee Reactions to Communication Technology Misuse at Work - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://www.ecst.csuchico.edu/~mkmurray/survey/
Go Links Google
Employee Reactions to Communication Technology Misuse at Work
Dear Participant:
Thank you for helping with this study. In this questionnaire, you will be asked to reflect on a number of different issues related to your reactions when other's use communication technologies (like email or cell phones) to communicate with you at work. Recalling to the best of your ability and providing honest responses to each of the following questions will be most helpful. Again, the questionnaire can be completed in approximately 15 minutes.
You are free to discontinue participation at any time without penalty. Your decision whether or not to participate will not affect future relations with the University of Texas at Austin. Your responses will remain anonymous. Only I, the principal investigator in this project, will have access to the completed surveys. The responses you provide will be downloaded to a personal file, compiled and then used to calculate aggregated results only. No individual responses with names of people or organizations will be identified.
Completion and submission of this questionnaire indicates that you have read the above information and agree to participate.
If you have any questions about the study or experience technical difficulties, please do not hesitate to contact me, Stephanie Hamel, at 530-898-4478 or through email at shamel@csuchico.edu. You may also contact my faculty supervisor, Professor Laurie Lewis at (512) 471-1934 or at lklewis@mail.utexas.edu. If you have questions or concerns, at any time, about your treatment as a research participant in this study, call Professor Clarke Burnham, Chair of The University of Texas at Austin, Institutional Review Board for the Protection of Human Research Participants at (512) 232-4383.
This study is organized in three parts. Please read through the directions in each section carefully and provide the best answer for each question.
Click here to take the survey
Employee Reactions to Communication Technology Misuse at Work
PART 1:
Please answer the following questions about communication incidents that have happened to you in the past year and answer the questions in the two columns at the right. Select the column NA if the question Does Not Apply.
Has someone you work with...
I experience this misuse of communication technology...
Very Infrequently Very Frequently
NA
How troubled are you by this type of incident?
Minor Nuisance Major Concern
NA
Used the wrong communication technology to send you a sensitive message?
Used the wrong communication technology to send you a detailed message?
Used the wrong communication technology to send you a personal message?
Used communication technology to send you a message in order to avoid direct contact with you?
Used the communication technology to send you a message in a way you had agreed not to use it?
1 2 3 4 5 6 7 NA

| | | | | |
|---|---|---|---|---|
| Not followed the normal practices of how your work group uses technology to send a message? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |

| **Has someone you work with…** | I experience this misuse of communication technology… Very Infrequently Very Frequently | NA | How troubled are you by this type of incident? Minor Nuisance Major Concern | NA |
|---|---|---|---|---|
| Broken the widely understood rules for how technology should be used to send messages? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Broadcast a message they were sending you to others who should not have received it? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Used communication technology in an offensive way when sending you a message? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Overused communication technology (the same technology or different types) to send you the same message many times? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Used the wrong communication technology given the urgent/not urgent nature of the message? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Used poor timing when sending you a message (too slow or too soon) using communication technology? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |

| **Has someone you work with…** | I experience this misuse of communication technology… Very Infrequently Very Frequently | NA | How troubled are you by this type of incident? Minor Nuisance Major Concern | NA |
|---|---|---|---|---|
| Sent you a message using communication technology and background noise or other distractions were obvious in the message? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Acted unprofessional when sending you a message using communication technology? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |
| Appeared less competent as a communicator while sending you a message using communication technology? | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA | ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 | ○ NA |



**PART 2:**

**Please answer the following questions about how you *usually* react when people you work with communicate with you and misuse the communication technology such as email, cell phones, or other types of technologies (company intranet, fax, instant messaging). Please indicate the degree to which you agree with each statement.**

| Strongly Disagree | | | Neither Disagree nor Agree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. I am patient with other people when they use technology inappropriately. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 2. It drives me crazy when people use communication media in the wrong way. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 3. When people use technology the wrong way, it doesn't bother me. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 4. Usually I am tolerant of others when they inappropriately use communication technology. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 5. I get upset when people do not use communication technology the way they are supposed to. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |

**PART 3:**

**In the text boxes below please provide up to two stories of times in which you had a negative reaction to someone you work with who misused technology when communicating with you. Include as much detail as possible about who the people were and what was happening when this occurred.**

Story 1

The work incident I described involved the misuse of (check one):

○ Email ○ Cell phone ○ Voice Mail ○ Phone ○ Fax ○ Instant Messaging ○ Other

The work incident I described involved (check one): ○ A Superior ○ A Subordinate ○ A Coworker

Story 2

The work incident I described involved the misuse of (check one):

○ Email ○ Cell phone ○ Voice Mail ○ Phone ○ Fax ○ Instant Messaging ○ Other

The work incident I described involved (check one): ○ A Superior ○ A Subordinate ○ A Coworker

Done Internet

**Please SELECT ONE of the stories you described above and answer the remaining questions with regard to the misuse of that communication technology.**

○ Story 1 ○ Story 2 (Check one)

**Please answer the following questions about the misuse of technology you described in your story.**

| | Single Event | | | | | | Pattern |
|---|---|---|---|---|---|---|---|
| 6. This type of communication technology misuse by my communication partner is a... | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |

**Please answer the following questions about the misuse of technology you described in your story.**

| | Strongly Disagree 1 | 2 | 3 | Neither Disagree nor Agree 4 | 5 | 6 | Strongly Agree 7 |
|---|---|---|---|---|---|---|---|
| 7. The incident I described was a severe violation of appropriate behavior. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 8. The incident I described was a mild violation of appropriate behavior. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 9. The incident I described was very inappropriate. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 10. The incident I described was inappropriate, but only mildly. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 11. The message my communication partner was sending me was good news. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 12. The content of the message was negative. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 13. My communication partner was sending me a message that was positive. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 14. My communication partner was sending me a message that was bad news. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 15. The message my communication partner sent was personal. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 16. My communication partner was trying to tell me something job related. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 17. The message was about my job. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 18. My communication partner was sending me a message about a personal topic. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |

**Please answer the remaining questions with regard to the story you wrote and selected about how someone you work with misused communication technology when sending you a message. Please indicate the degree to which you agree with each statement below.**

| Strongly Disagree | | | Neither Disagree nor Agree | | | Strongly Agree |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**The best explanation for the incident I described is:**

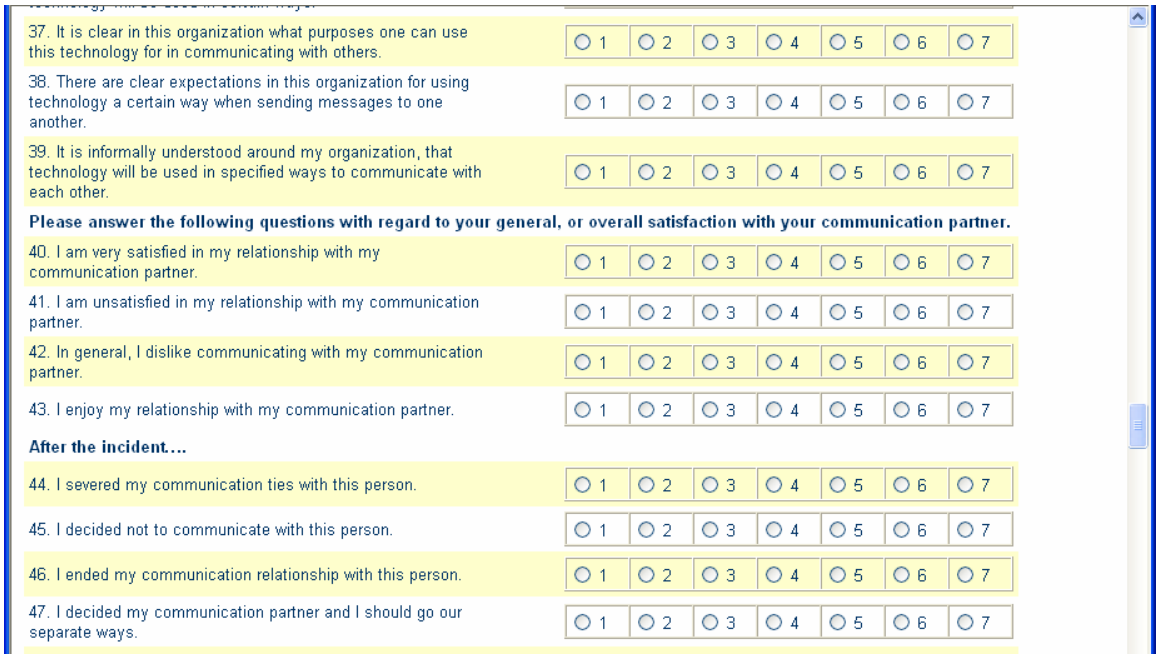
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 19. Features of the technology (or lack of them) resulted in the negative incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 20. The communication technology is at fault for the incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 21. Characteristics of the technology are completely to blame for the negative effect the communication had. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 22. This incident happened because of the communication technology and nothing else. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 23. My communication partner intended to use the technology to have a negative effect. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 24. My communication partner behaved in such a way that it is clear a negative effect was intentional. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 25. My communication partner is fully aware of the potential for negative outcomes when using the technology in this way. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 26. The deliberate actions of my communication partner are to blame for the incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 27. Even though my communication partner's intentions were good and the technology worked great, there was still a negative effect because of how this technology is used in my organization. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 28. It wasn't the fault of my communication partner or the technology, sometimes these things happen at my organization. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 29. My organization is completely at fault for this incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 30. Despite the positive features of the technology and my communication partner's good intentions, there was still a negative effect because of how this technology is used in my organization. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**The next few questions ask about your experience with the technology used in the incident.**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 31. I am very experienced at using this type of communication technology. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 32. I feel that I am a novice at using this type of communication technology. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 33. I have used this technology a lot. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 34. I use this technology all the time. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

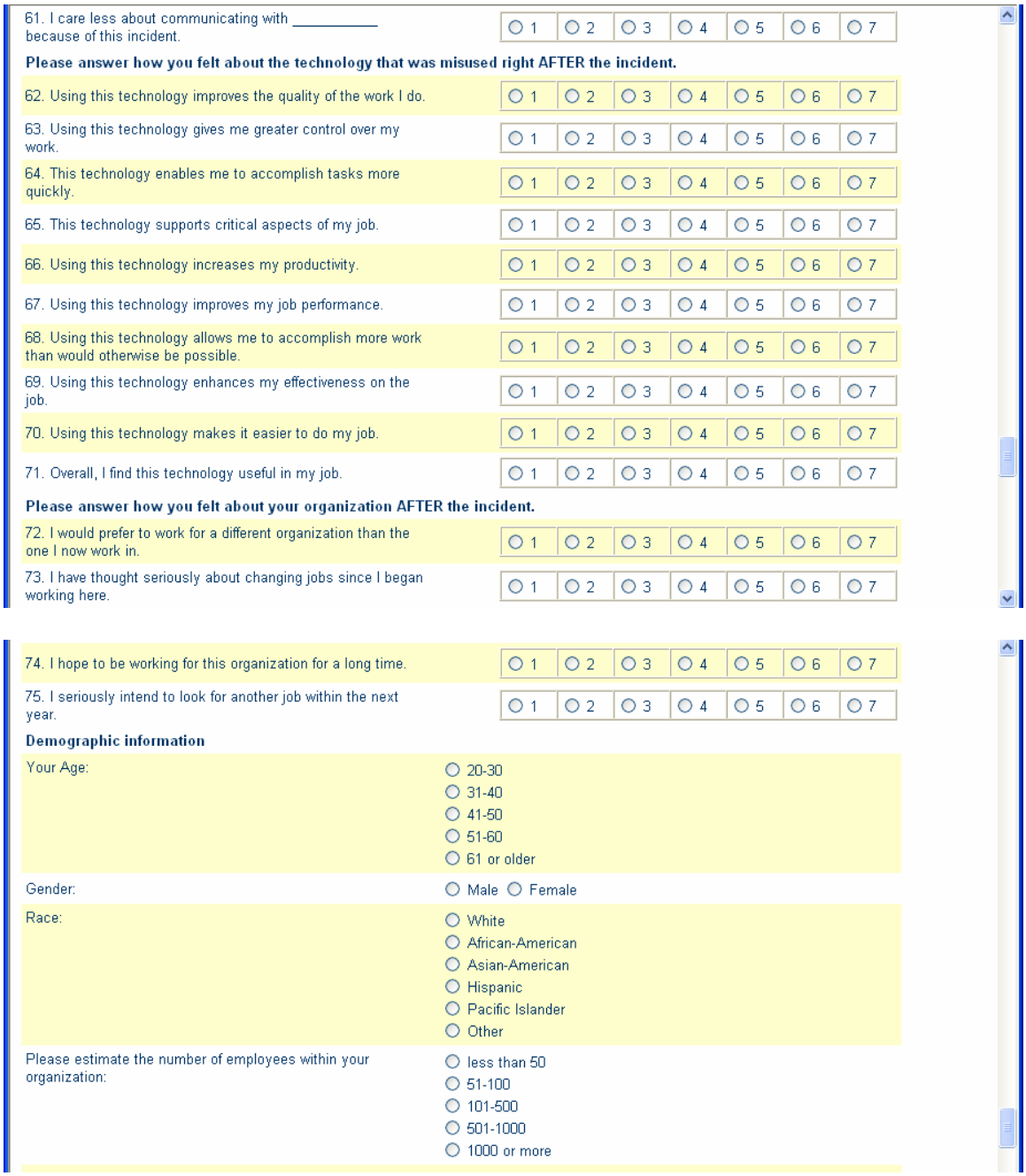
**These questions ask about how the technology used in the violation is perceived in your organization.**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 35. I am unsure of how this communication technology is supposed to be used in my organization. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 36. There is an assumption in my organization that this technology will be used in certain ways. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 37. It is clear in this organization what purposes one can use this technology for in communicating with others. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 38. There are clear expectations in this organization for using technology a certain way when sending messages to one another. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 39. It is informally understood around my organization, that technology will be used in specified ways to communicate with each other. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Please answer the following questions with regard to your general, or overall satisfaction with your communication partner.** | | | | | | | |
| 40. I am very satisfied in my relationship with my communication partner. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 41. I am unsatisfied in my relationship with my communication partner. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 42. In general, I dislike communicating with my communication partner. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 43. I enjoy my relationship with my communication partner. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **After the incident…** | | | | | | | |
| 44. I severed my communication ties with this person. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 45. I decided not to communicate with this person. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 46. I ended my communication relationship with this person. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 47. I decided my communication partner and I should go our separate ways. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 48. I mentioned the behavior that bothered me about this incident to my communication partner. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 49. I told my communication partner I had a negative reaction to how they used the technology in the incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 50. I made a serious effort to make my communication partner improve his/her use of this technology after this incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 51. I suggested changes in how this technology should be used to other people I work with after this incident. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 52. Despite this incident, I will say good things about _____even when other people criticize him/her. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 53. Because of this incident, I will no longer wait patiently for _____to improve how they use technology on the job. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 54. Despite this incident, I think that _____is probably as good as most at communicating with this technology. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 55. Despite this incident, I will quietly stick with _____ through good and bad times. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 56. Because of this incident, I will not speak highly of _____ to others. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 57. Despite this incident, I will work harder to improve my communication with _____. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 58. Due to this incident, I have lost motivation for communicating with _____. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 59. Due to this incident, I feel like avoiding communication with _____. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 60. After this incident, I feel like putting less effort into communicating with _____. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 61. I care less about communicating with _____ because of this incident. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |

**Please answer how you felt about the technology that was misused right AFTER the incident.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 62. Using this technology improves the quality of the work I do. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 63. Using this technology gives me greater control over my work. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 64. This technology enables me to accomplish tasks more quickly. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 65. This technology supports critical aspects of my job. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 66. Using this technology increases my productivity. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 67. Using this technology improves my job performance. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 68. Using this technology allows me to accomplish more work than would otherwise be possible. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 69. Using this technology enhances my effectiveness on the job. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 70. Using this technology makes it easier to do my job. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 71. Overall, I find this technology useful in my job. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |

**Please answer how you felt about your organization AFTER the incident.**

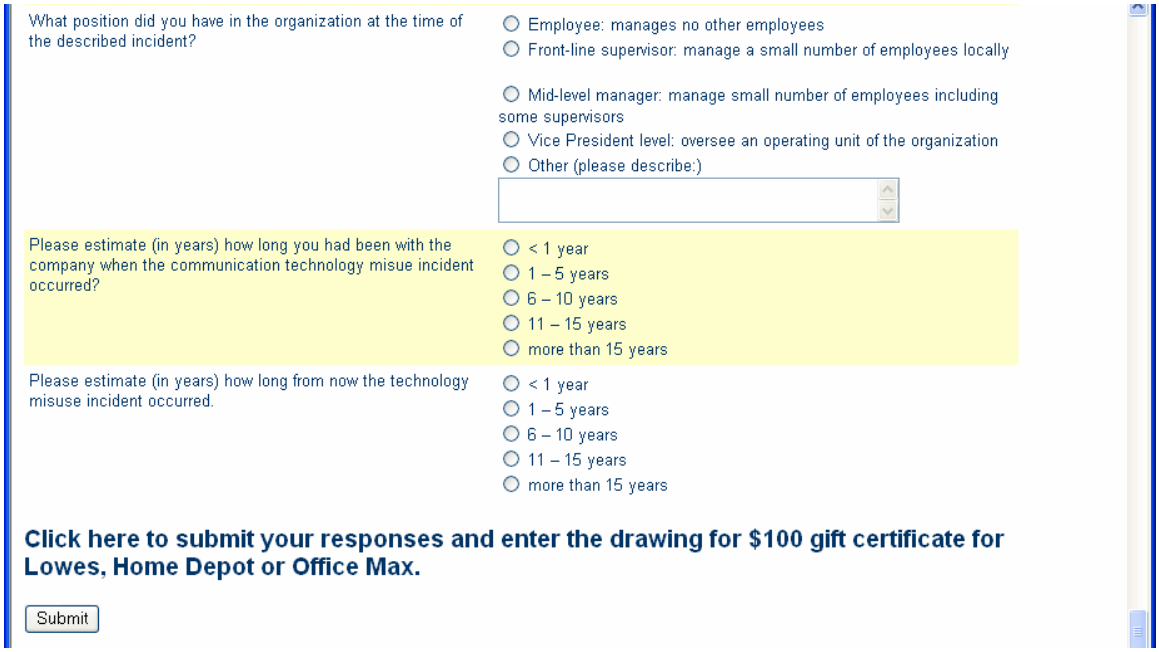
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 72. I would prefer to work for a different organization than the one I now work in. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 73. I have thought seriously about changing jobs since I began working here. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 74. I hope to be working for this organization for a long time. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |
| 75. I seriously intend to look for another job within the next year. | ○ 1 | ○ 2 | ○ 3 | ○ 4 | ○ 5 | ○ 6 | ○ 7 |

**Demographic information**

| | |
|---|---|
| Your Age: | ○ 20-30<br>○ 31-40<br>○ 41-50<br>○ 51-60<br>○ 61 or older |
| Gender: | ○ Male ○ Female |
| Race: | ○ White<br>○ African-American<br>○ Asian-American<br>○ Hispanic<br>○ Pacific Islander<br>○ Other |
| Please estimate the number of employees within your organization: | ○ less than 50<br>○ 51-100<br>○ 101-500<br>○ 501-1000<br>○ 1000 or more |

Industry of the organization in which the inappropriate communication occurred:

- Architecture and Engineering
- Arts, Design, Entertainment, Sports, and Media
- Building and Grounds Cleaning and Maintenance
- Business and Financial Operations
- Community and Social Services
- Computer and Mathematical
- Construction and Extraction
- Education, Training, and Library
- Farming, Forestry, and Fishing
- Food Preparation and Serving Related
- Healthcare Practitioners and Technical
- Healthcare Support
- Installation, Repair and Maintenance
- Legal
- Life, Physical, and Social Science
- Management
- Office and Administrative Support
- Personal Care and Services
- Production
- Protective Services
- Sales and Related
- Transportation and Material Moving



What position did you have in the organization at the time of the described incident?

- Employee: manages no other employees
- Front-line supervisor: manage a small number of employees locally
- Mid-level manager: manage small number of employees including some supervisors
- Vice President level: oversee an operating unit of the organization
- Other (please describe:)

Please estimate (in years) how long you had been with the company when the communication technology misue incident occurred?

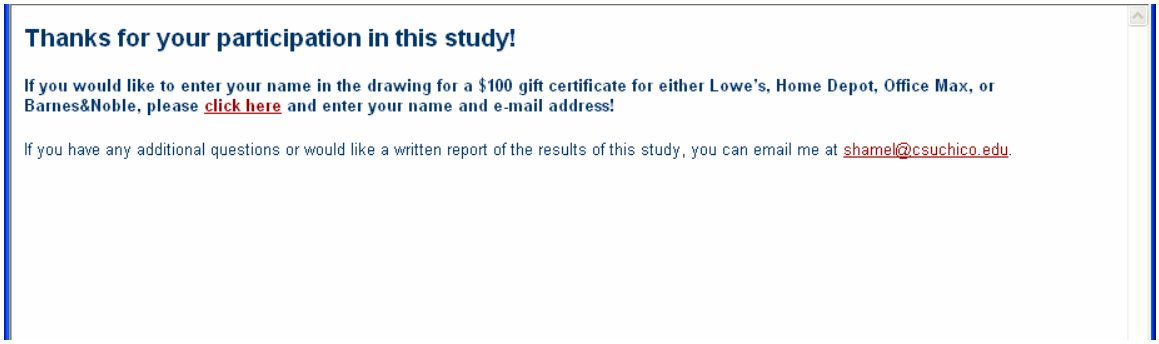
- < 1 year
- 1 – 5 years
- 6 – 10 years
- 11 – 15 years
- more than 15 years

Please estimate (in years) how long from now the technology misuse incident occurred.

- < 1 year
- 1 – 5 years
- 6 – 10 years
- 11 – 15 years
- more than 15 years

**Click here to submit your responses and enter the drawing for $100 gift certificate for Lowes, Home Depot or Office Max.**

Submit


Thanks for your participation in this study!
If you would like to enter your name in the drawing for a $100 gift certificate for either Lowe's, Home Depot, Office Max, or Barnes&Noble, please click here and enter your name and e-mail address!
If you have any additional questions or would like a written report of the results of this study, you can email me at shamel@csuchico.edu.


Enter your name and e-mail address below:
Name:
E-mail:
Select one:
Please select...
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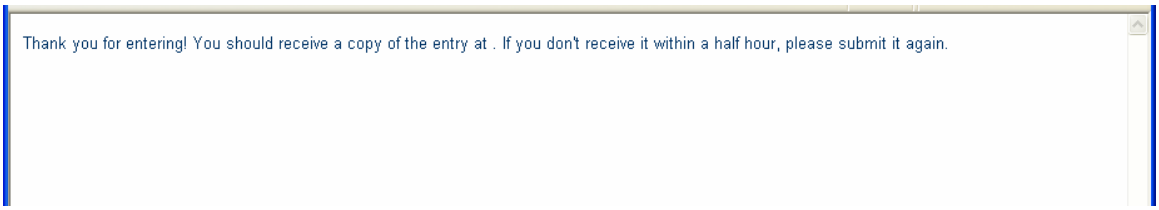
Thank you for entering! You should receive a copy of the entry at . If you don't receive it within a half hour, please submit it again.

# APPENDIX C

**Data ID** **Technology** **Superior/Subordinate/Coworker**

| | **Type of Technology Misuse** | Match rating 1-3 | Notes |
|---|---|---|---|
| 1 | Wrong tech. for sending a **sensitive** msg. | | |
| 2 | Wrong tech. for sending a **detailed** msg. | | |
| 3 | Wrong tech. for sending a **personal** msg. | | |
| 4 | Using technology to **avoid** you. | | |
| 5 | Sent message in a way they had **agreed NOT** to send it. | | |
| 6 | Did NOT follow **normal practices** of workgroup **or org**. | | |
| 7 | **Broke** widely understood **rules** for use | | |
| 8 | **Broadcast** a message to others inappropriately | | |
| 9 | Used technology in **offensive** way | | |
| 10 | Overused technology to send the same message **many** times. | | |
| 11 | Wrong tech. given **urgency/not urgent** nature of message. | | |
| 12 | Poor **timing** (too slow or too soon) | | |
| 13 | Background **noise**/other distractions | | |
| 14 | Acted **unprofessional** | | |
| 15 | Appeared less **competent** | | |
| 16 | Other: | | |

| **Communication tasks** | | **Frequency** | **Total** |
|---|---|---|---|
| 1 | Exchange routine information | | |
| 2 | Negotiate or bargain | | |
| 3 | Get to know someone | | |
| 4 | Clarify something confusing | | |
| 5 | Stay in touch | | |
| 6 | Exchange urgent/timely info | | |
| 7 | Generate ideas/brainstorm | | |
| 8 | Resolve disagreements | | |
| 9 | Make important decisions | | |
| 10 | Exchange confidential/sensitive info | | |
| 11 | Exchange important info. | | |

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# VITA

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